Lecture
ON
THE CONCENTRATION OF POPULATION IN CITIES.

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GENTLEMEN,—The steadily increasing tendency of population to leave the country and concentrate in towns is a fact which does not admit of a doubt. Of the twenty-nine millions of inhabitants of England and Wales, about 18,500,000 are classified by the Registrar-General as belonging to town districts and about 10,500,000 as belonging to country districts. In 1801 London contained about one-eleventh of the entire population of England and Wales, whereas according to the last census it was found to contain about one-seventh of the entire population. Dr. Gould of Washington, in a paper read before the late International Congress of Hygiene and Demography, stated that a short half century ago the urban population of the United States was 8·5 per cent. of the whole, while to-day the urban population constitutes 29 per cent. of the whole. The American city, says Dr. Gould, "creates itself with appalling suddenness," and it is probable that Chicago, with its 1,200,000 inhabitants, having doubled its population in the last ten years, may be said in this particular matter to have beaten the record. It must not be forgotten, however, that London has more than doubled its population in the last half century; that Cardiff has risen from 80,000 to 130,000 inhabitants in the last ten years; that Barrow-in-Furness, Eastbourne, Bournemouth, West Ham, and Croydon are all instances of towns (and other instances could easily be given) which have sprung into existence within the memory of many of those whom I am addressing. It is important to bear these facts in mind, as showing that the English cities, equally with those in America, create themselves with appalling suddenness; that we do not merely inherit our cities with their various shortcomings, but that we create them for ourselves, and are directly and solely answerable for their good or ill construction. The cause of this concentration of population is the desire for business, the wish to get money easily and quickly, and to spend it advantageously. A man who trades in a centre of express mail services, telegraphs, and telephones, has all the world before him if he knows how to make use of it. There is consequently a rush for such favoured centres, and it has come about that steam and electricity, which annihilate time and space, instead of enabling us to live further apart from each other, have produced a directly opposite effect. The dealer, be he wholesale or retail, likes to be surrounded by a crowd of potential customers, rather than be dependent on a few; and the artisan naturally turns to great industrial centres as offering the readiest market for his labour, and often finds out too late that the higher wages of the town are more than counterbalanced by the extra cost of living. The crowds of independent and idle persons who settle in the towns do so because they find a greater variety of methods of killing time, or, as they prefer to put it, because the state of civilisation is greater in the towns than in the country. But what is civilisation? A recent anonymous writer (the author of "Behind the Bungalow") speaks of this "half hatched civilisation of ours, which merely distracts our energies by multiplying our needs, and leaves us no better off than we were before we discovered them"; and we must all admit that there is a good deal of this kind of civilisation which passes current at the present day, and especially in cities, where a large proportion of the population are the slaves of inane conventionalities. Cities are the abodes of art, and art in all its forms is elevating; but it is a question whether the increasing difficulties which, especially in London, we encounter in the study and appreciation of nature, do not more than counterbalance the artistic advantages of the town. "Pictures, taste, Shakespeare, and the musical glasses" are not the only things worthy the attention of civilised man, and it is noteworthy that many of the leading spirits in all ages have turned from the artificial enjoyments of the town to the greater freedom and more natural pleasures of the country. It is said that our rural fellow subjects, having been forcibly educated to a pitch which enables them to study all the gay doings of the town, are beginning to find the country insufferably dull. The cause of dulness, however, is in ourselves and not in our surroundings. Our country friends must be taught that they have at hand one of the surest cures for dulness. Let them learn to study and appreciate the book of nature—that book which is always with us, ever open and inexhaustible—and dulness will become impossible.

The mind which has occupation to really interest it cannot be dull or weary, and the surest way to find interest in this life is productive labour. In the making of a pudding, the raising of crops, the writing of books, the practice of a profession, and in all the constructive arts, it is necessary to use the judgment; and it is this exercise of judgment which is the true complement of book-learning. The man who reads and who produces nothing is seldom capable of action, he becomes giddy with the opinions of others, and finds it impossible to have a fixed opinion of his own. In action and production the mere see-saw of criticism is of no use, we must make up our minds. We must really think, and the man who has learnt to think runs little risk of being dull. Those who have to cope with the uncertainties of nature are bound to exercise their judgment in a high degree. Unless the farmer be constantly thinking and looking ahead, and unless he bring (often unconsciously) a good deal of science to bear upon his practical work, he will have no chance of success. We are not to sit in judgment on such a one because he does not show the alacrity, sharpness, and power of repartee which are seen in the town dweller. The cockney and the yokel are educated in totally different schools, neither understands the other, and they have for each other a good deal of mutual contempt. It is difficult, however, to believe that he who can perform the varied duties of the farm, and who has been brought up in contact with a wide range of natural phenomena, is not the equal intellectually of the factory hand, who is the slave of a machine which thunders to and fro with brutal accuracy for ten hours at a stretch. Physically the country labourer is vastly superior to the town dweller, and be it remembered that mental power is mainly dependent on physical health.

One of the undoubted consequences of the concentration of population in towns is deterioration in physical health. The disease-rate and the death-rate are both higher in urban than in country districts. The difficulties of rearing children are much greater in towns than in the country, and the risk of faulty development in those which are reared is also greater. The undue concentration of population must tend towards the deterioration of our race, and there can be no doubt that the diminution of the evils of such concentration is a subject which demands very earnest attention. We all of us have to run more or less risk in earning our living. Some enter the army or navy, some go to tropical countries, some become file-grinders, hotel servants, or doctors, and it is not, perhaps, desirable that the bread-winners should look too narrowly at the risks connected with their daily work. Every prudent man, however, will endeavour to secure vigorous health for his wife and children; and, whenever it can be avoided, these should not be called upon to run unnecessary risks.

The Registrar-General's returns show that for every 100 deaths in country districts there are about 120 deaths in towns, and that the death-rate of children under five, per 1000 living at that age was (in the year 1890) 66·5 in Lancashire and 65·2 in London, as against 30·3 in Dorsetshire, 31·1 in Wiltshire, 31·8 in Berkshire, 31·2 in Rutlandshire, 35·8 in Herefordshire, 35·3 in Shropshire, 35·8 in Hampshire, 36·4 in Oxfordshire, 37·5 in Bedfordshire, 36·0 in Sussex, and 39·3 in Somersetshire; and, although the infant mortality was higher in the other counties having a more urban character, in none of them (except Lancashire and London) did it exceed 57·5. It is thus evident that the risk to children under five is twice as great in London and Lancashire as it is in some of the rural districts. How many children are crippled for life by infantile diseases contracted in towns we have no means of knowing. Death-rates are nowadays the subject of perennial paragraphs in the newspapers, and they are systematically used for puffing localities, and are beginning to form a recognised feature in auctioneers' advertisements.

Before accepting the death rate as evidence of the healthiness of a locality we must take several facts into consideration. 1. The mobility of the population in the present day is greater than it ever has been previously, and this must have a vitiating effect upon the value of the death-rate, for it is evident to all of us that a man who has contracted a fatal disease, let us say, in London may die at Croydon, Brighton, the Riviera, Cairo, or elsewhere. This fact must largely lessen the trustworthiness of local death-rates, although it does not probably appreciably affect the trustworthiness of the death-rate for the country as a whole. 2. Again, the death-rate of a city is of little value unless correction be made for abnormal age distribution. London, especially the central parts of it, contains a great deficiency of persons at the extreme (and most vulnerable) periods of life, and this of course helps to keep the death-rate lower than it would be if it contained its due proportion of tender infants and feeble old persons. The population of central London, it must be remembered, is largely composed of selected adults imported from the country. 3. Lastly, let me say that the death-rate of London is kept down very largely by a process of dilution. If any comparison is to be made between the London of to-day and the London of former times, we must be careful to select identical areas. As it is, the high death-rate of the centre is diluted by the low death-rates of the outskirts, and the healthiness of Hampstead, Lewisham, and other outlying districts is used to conceal the condition of the centre.

For the sake of my argument I have divided the population of London into three portions as nearly equal as the very irregular shape of the registration districts will permit.

1. The outer portion, consisting of the outlying districts of Hammersmith, Fulham, Hampstead, Islington, Hackney, Poplar, Battersea, Wandsworth, Camberwell, Lewisham, and Plumstead, and containing 1,676,475 inhabitants according to the last census.

2. Districts holding a middle position—viz., Kensington, Chelsea, Paddington, St. George's (Hanover-square), Marylebone, St. Pancras, Lambeth, Greenwich, and Woolwich, and containing a population of 1,317,078 inhabitants.

3. The central districts, which might be spoken of as London proper. These include, in addition to the "central districts" of the Registrar-General, Westminster, Shoreditch, Bethnal Green, Whitechapel, St. George's-in-the-East, Stepney, Mile-end, Southwark, Newington, Bermondsey, and Rotherhithe. These districts form a compact city in a ring fence, and contain 1,217,503 inhabitants, a population twice as big as that of any other city in the country. I have taken the deaths of the various districts as published in the corrected quarterly tables of the Registrar-General, and from them I have calculated death-rates for these three divisions of London for every quarter during the last two years.

London Population 4,211,056.	1890. 1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1891. 1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Outlying Districts Population 1,676,475.	20·9	15·4	16·5	21	20·4	20·2	14·1	17·6
Middle Districts Population 1,317,078.	24·3	17·6	17·6	22	24·3	23·3	16·8	19·7
Central Districts Population 1,217,503.	29·6	21	22·9	28·8	28	27·9	20·7	24·9 *

* The deaths in the first quarter of 1892 give death-rates of 25·7, 27·4, and 32·0 for the outer, middle, and central districts respectively.

If we take the yearly rates instead of the quarterly we have the following result:—

	1890.	1891.
Outlying Districts	18·4 per 1000	18·1 per 1000
Middle Districts	20·4 ,,	21·0 ,,
Central Districts	25·6 ,,	25·4 ,,

From the above tables it is evident that when we boast of London as a healthy city we must exclude the central districts, or London proper, with its 1,200,000 inhabitants. Indeed, the death-rate of London proper was extremely high in 1890 and 1891, but, large as the figures are, they do not show the full state of the case, because no correction has been made for age distribution and mobility, which is essential before we can compare them with the rates for the rest of the country. Nothing can show better than these figures the effect of overcrowding on death-rate. Not only are the central districts the most crowded and the poorest, but they are hemmed in on every side by the middle and outlying districts, so that fresh air can never reach them. As a result, we find the death-rates are some 40 per cent. higher than the rates for the outlying districts. In all seasons and under all conditions the uniformity of relation between the rates of the outlying and central districts is maintained. If we take the first quarter of 1890 and the second quarter of 1891, during both of which we had an epidemic of influenza, we find that the death-rate of the outlying districts was 20·9 and 20·4, while for the central districts it was 29·6 and 27·9. Or take the last quarter of 1890 and the first quarter of 1891, which were characterised by weather of great severity, we find that in the outlying districts the death-rate was 21 and 20·4, while in the central districts it was 28·8 and 28, notwithstanding the fact that the temperature of the central districts was certainly considerably higher than that of the outlying districts. If we take the periods when the climatic conditions are at their best, the same relationship in the figures is maintained. Thus for the third quarter of the two years the rates of the outlying districts were 16·5 and 14·1, while for the central districts they were 22·9 and 20·7.

Finally, let us take a period when the climatic conditions were at their worst, as during the fog of last Christmas, which commenced on Dec. 21st, and continued for parts of five days. During this fog the mean temperature of the air was 25° F.; the air was calm, with slight easterly currents, and saturated with moisture; ozone and sunshine absent. Under these circumstances the irritating products of combustion and the soot from thousands of chimneys remained suspended in the fog, as did also the effluvia from over 4,000,000 human beings and the varied impurities of a big city. The air was bitterly cold and irritating, and from the absence of wind could not be renewed, so that the citizens of London were very much in the condition of gold fish in a bowl whose water has not been renewed. The corrected average weekly number of deaths for the fortnight ending Jan. 2nd, 1892, was 3728, while the deaths which actually occurred were 5170, so that we have 1442 deaths actually caused by the fog. The death-rate for the whole of London for this fortnight was 32 the figures for the three areas being 29 for the outlying districts, 31·8 for the middle districts, and 38 for the central districts. This high death-rate for the central districts, which are the warmest, seems to show that it is not merely the coldness of the fog which raises the death-rates, but rather the impurities, mechanical, chemical, and infective, which it contains.

Bad as are the health conditions in the centre of London, they are eclipsed by those of New York. In the city of New York, which had a population of 1,600,000 in 1890, more than 1,200,000 of the inhabitants live in tenement houses. The density of population averages 65 persons to the acre, while in many of the wards it is over 200 to the acre, and in one ward it reached 559 persons to the acre. The average death-rate for the past ten years was over 26, and in the year 1890 the deaths exceeded the births by 980, and while there were 39,250 births in the year the authorities are jubilant because only 10,288 of the children born, or rather more than 26 per cent., died before they were a year old. The deaths in New York invariably exceed the births, so that the population is maintained and increased entirely by immigrants. The birth-rate is exceedingly low. Last year it was only 24, and that was a higher figure than had been reached in any of the thirty previous years. It must be remembered that New York has a magnificent water-supply and a very complete system of sewerage. As in London, there is apparently a very great deficiency of very young and very old inhabitants; and, as in London, it may be presumed that a very large number of those who fall ill retire from the city to die elsewhere. Notwithstanding the great activity of the sanitary officers, it is evident that the state of public health in New York is far from good, and that, owing mainly to the density of population, it is not a very wholesome place.

The evils of overcrowding on space have been made more plain and comprehensible by the discoveries which have been made in the new science of bacteriology. When the public hears that a new microbe has been discovered in connexion with this or that disease, it says, "Now, surely, we shall have a cure." It may be well to point out that, hitherto, in no case has the discovery of a microbe led to the discovery of a cure; and the evidence that the study of the life-history of pathogenic microbes is likely to lead to the discovery of "cures" is, to say the least, not very strong. "Prevention," however, "is better than cure"; and it is clear that the study of the life-history of pathogenic microbes must precede all adequate measures for preventing the diseases which they cause.

It was the study of the life-history of the microbes which produce putrefaction which led Sir Joseph Lister to adopt the antiseptic treatment of wounds which has produced such grand results. The knowledge that cholera and typhoid poisons can live in water has led to great caution in the selection and protection of water supplies, and I believe the time is not far distant when we shall regard the wilful mixing of excremental matters with water as, in a sense, an act of public suicide. Again, the knowledge that typhoid fever, diphtheria, and scarlet fever are often connected with the milk-supply has been the means of arresting many an epidemic. In short, the medical profession has no cause to feel ashamed of its recent progress in the direction of prevention of disease, which, as Sir William Jenner used forcibly to teach in this college, should be the great aim of a physician.

While certain diseases reach us *vid* water and food, there are others which come to us in the air we breathe, and it is well to bear in mind that it is in relation to air-borne diseases that overcrowding is especially dangerous. Whooping-cough, measles, scarlet fever, tubercle, typhus fever, small-pox, influenza, pneumonia, and plague, and, to a less extent typhoid fever, are among the diseases which are air borne, and the spread of which is, in a very obvious way, favoured by overcrowding. It is definitely known with regard to some, and may, I think, be safely inferred with regard to all the above-named diseases, that the carriers of the infection are particulate and alive. A sufferer from any one of these diseases is continually giving off infective particles, and the danger of the infection travelling to a second person depends (1) upon the distance of the second from the first; (2) the ease with which the infected air can be diluted with fresh air. Thus the danger caused by proximity to an infected person in the open air is comparatively slight, because the chance that the infective particles will be blown away by the wind is very great. When, however, the infected and the healthy come to live under the same roof, to occupy the same room, and, still more, the same bed, the risks of infection are enormously increased, because the air in the confined space gets very largely charged with infective particles and the healthy can hardly avoid taking in the infection, and that, too, in large quantities. Given the rate of movement of the air, the degree of proximity of the individuals, and the number of infective particles given off by the diseased person, and the risk of infection could be stated as a mathematical formula. There is good reason to believe, however, that the mere fact of overcrowding produces some change (possibly chemical) which greatly increases the risks of infection, apart from the mathematical factors above alluded to. Some of the facts connected with the recent epidemic of influenza bring out very clearly the increased danger of infection which results from overcrowding between walls and under a common roof.

Overcrowding is seen at its maximum in the forecastle of a ship after the men have "turned in," and the danger to all should any case of infective disease be present among them is well-known. The explosive outbursts of influenza which are liable to occur on board ship have been amongst the startling features of every epidemic. In the same way explosive outbursts of the disease have occurred in establishments where many persons have a common employment under a common roof, as witness the sudden occurrence of a thousand cases at the end of 1889 in the Magazins du Louvre at Paris, and a similar outburst at the General Post Office in January, 1890. A careful consideration of the whole of the facts of the epidemic of 1889-90 leads Dr. Parsons, in his report made to the Local Government Board, to conclude:[1] "8. That in public services and establishments persons employed together in large numbers in enclosed spaces have suffered in larger proportion than those employed few together or in the open air. 9. That in institutions in which the inmates are brought much into association the epidemic has more quickly attained its height, has prevailed more extensively and been sooner over than in those in which the inmates are more secluded from one another." The converse is also true, for Dr. Parsons states that those living away from the possibility of infection and in small groups such as light-house keepers and deep-sea fishermen enjoyed a remarkable immunity from the epidemic. It must be remembered that what is true of influenza is also true of other air-borne infections. It is known that whooping-cough and measles are prevalent and fatal very much in proportion to the density of population on a given area, and it has lately been shown that although the mortality in so-called model dwellings is below that of the working-class dwellings as a whole, the occurrence in them of infantile infectious diseases, including diphtheria, is distinctly above the average. This is not to be wondered at, for with a large number of persons under a common roof the risks of infection must be proportionate to the number of inhabitants.

The modern city is distinctly a modern invention; it had no counterpart in ancient times. The ancients crowded behind walls from fear of their enemies. The modern city has no walls and no need of them, and there does not seem to be the same necessity for overcrowding that there was in the ancient city. As a matter of fact, however, the modern city both here and in America exhibits a degree of overcrowding on space such, as I believe, has never existed in the history of the world. The main cause of the difference between the ancient and modern city is the possession *of water under pressure*. In ancient Rome an excellent supply of water flowed from the neighbouring hills along open aqueducts supported on arches, and it is probable that the greatest head of water to be found in ancient Rome was represented by the height of the aqueducts above the level of the ground. Most of the buildings in ancient Rome were what we should consider low. The dwelling-houses were rarely more than one storey, or at most two storeys, high, and it was only in public buildings—temples, baths, basilicas—that an attempt was made to carry the edifice to any great height. In mediæval cities, three-storeyed buildings represented the average maximum, for without water under pressure very high buildings were impracticable owing to the labour of carrying water to the upper storeys and the difficulty of removing refuse. Formerly a house was scarcely habitable unless it had a courtyard of some kind. This was essential for sanitary purposes—for a well and for the bestowal of refuse pending its removal by the scavenger; most of the decent houses in mediæval London had a considerable amount of curtilage, as may be seen by consulting the maps of Aggas, Ryther, Newcourt, and others. The steam engine and the cast iron water pipe have together created a new order of things. The steam engine gives us any head of water we desire, and the modern iron fittings are able to stand any pressure to which we may find it necessary to subject them. There is no longer any difficulty in taking water to the top storey of any house, however lofty; no longer any difficulty in washing the filth out of any dwelling-house, however big; there is no longer any absolute necessity of limiting the height of buildings; no longer need of any curtilage to a house, nor for any outlet other than a pipe. This, indeed, is magical. "My estate," says one, "has risen in value from £100 an acre to £5 a foot." "My water shares," says another, "pay me 12 per cent." "My mansions in the sky," says the builder, "have sold for double what they cost me." All the gas shareholders and those who have invested in electric supply companies join in the chorus of delight. This is, indeed, a civilising and wonderful age. Let us build a temple, and place in it a steam engine, an iron water pipe, and a hydraulic lift. Under these very money-making conditions it is not to be wondered at that the craze of the present time is for tenement houses, which are called model dwellings, flats, or mansions, according to the class for which they are intended. Whatever they may be called they are all of the same type, and they are calculated to trouble the soul of the sanitarian who knows the danger of overcrowding on space and under a common roof.

Let us hear what Edinburgh can teach us on this subject.

[1] See p. 101 of the Report on the Influenza.

In a very excellent paper on the Hygiene and Demography of Edinburgh, which was communicated to the late Congress, and which is now published in the twelfth volume of the Transactions of the Congress,[2] I find (p. 66) the following passage:—"Edinburgh enjoyed for many years the unenviable notoriety of being subject to periodical outbursts of fever. These assumed in all cases the epidemic form, and entailed a large mortality among the citizens. ..... There can be no doubt that one main cause of these repeated outbreaks was the manner of housing the inhabitants which, copied from the French, consisted in piling tenement above tenement until a large overcrowded population was confined in a limited space, and could only communicate with the outer world by a narrow stair. ..... When infectious disease of any kind broke out in such circumstances, it spread with great rapidity, and quickly assumed the epidemic form." Tenement houses are common in Paris, where the overcrowding on space as a consequence is on an average twice as great as in London, and where the death-rate is considerably higher than in London. (In 1881 I find the death-rate was 28 per 1000 in Paris.) The condition of New York I have already alluded to. It is doubtless gratifying to national vanity to have a capital city composed of huge edifices which may be made to look palatial from the outside, but there is also no doubt that the comparatively low death-rate which London has hitherto enjoyed is to be attributed to the fact that as a rule each family has had a house of its own. It is strange that the craze for high buildings has reached its maximum in America, where cities have sprung into sudden existence on the boundless prairie, where space should be no object. The main causes of this seem to be hurry, avarice, an insane spirit of competition, and the difficulties connected with domestic service in a country where the citizens are more willing to slave for a machine than serve a mistress. Life in hotels and boarding-houses is more common in America than here, and coöperative housekeeping has reached a high stage of development. Water, warmth (by steam coils), gas, electricity, telephones, and hydraulic power are supplied to groups of houses from common centres. This is a convenient arrangement, but one which makes for the overcrowding of houses on space. Domestic architecture is in danger of becoming a lost art in cities where the inhabitants are content to be stored in human warehouses erected by engineers and as full of machinery as a factory. In the most modern city in the world (Chicago), the builders of which have had the opportunity of avoiding all the errors of the past, it is curious to note that the engineer architects have exceeded all previous efforts in the matter of high buildings and disgraceful overcrowding. The "Masonic Temple" in Chicago has twenty storeys and is 265 feet high, and is merely the latest and worst of many similar buildings in the city. In such a city the sewage difficulty is necessarily very great, but we learn that a special canal is to be constructed for its reception, and this is to discharge into the upper waters of the Mississippi! It seems astounding that such an outrage on their noblest river should be tolerated by the American people. The volume of the sewage may be as nothing when compared with the volume of the river into which it is to be discharged, but one would ask, Can this ingenious race, who like to be considered in the van of progress, do nothing better with the sewage of a great city than this? And are we to conclude that their hygiene is founded more on expediency and money getting than on any true scientific, economic, or moral principles? As regards the state of public health in Chicago, I can give a few figures which may help one to form an estimate of it. The following table, compiled from the official mortality returns, shows that for 1890 the death-rate was 18·2, and for 1891 22·2. I have not been able to make any correction for age distribution, but it seems highly probable that Chicago is largely peopled by vigorous adult immigrants who crowd into it in search of employment. The zymotic death-rate was 4·09 in 1890 and 5·61 in 1891, the latter figure being not far from double the zymotic death-rate of London in 1890. The death-rate from typhoid fever was 840 per 1,000,000 in 1890 and 1596 per 1,000,000 in 1891, the latter figure being nearly five times as great as the largest typhoid fever death-rate ever recorded in London. Croup and diphtheria last year killed 1087 per 1,000,000 in Chicago, which is a figure enormously in advance of any that have ever been recorded in London. These figures show with a vengeance that no amount of ingenious engineering can counteract the evils of overcrowding on space.

Death-rate per 1,000,000 living.

	All causes.	Zymotic.	Diphtheria and croup.	Typhoid fever.	Tubercular affections.	Respiratory affections.	Violence.
Chicago, 1890	18,214	4090	1051	840	1859	3136	1069
Chicago, 1891	22,204	5610	1087	1596	1907	4089	1170
London, 1890	20,978	2896	330	144	2943	4910	719

The following account of Chicago, taken from a paper on the Columbian Exposition read before the Society of Arts in December last by Mr. James Dredge, seems to show that the modern American business city is admirably calculated to rob existence of its pleasures: "No description, in fact, would do justice to this city of 1,200,000 inhabitants, almost every one of whom appears endowed with preternatural activity; which owns a street eighteen miles in length, almost a dead level for the whole distance, and on which are houses twenty storeys high; whose traffic is as noisy as it is ceaseless, both on the smooth-running rope-worked railways and the ill-paved, jolting roads; where the roar of the locomotive and the scream of the lake steamer emphasise the fact that repose and silence are unknown, even in the dead of night; where a pall of smoke, the outpouring of a thousand factories and of ten thousand dwellings, reminds the Englishman of home. Picture all these things, and you can form some idea of Chicago, which has been raised in sixty years by the indomitable energy of Americans, to the rank of the sixth city of the world in point of population ..... Great as Chicago is, the period of her true greatness has yet to come. Its commencement will dawn when her inhabitants give themselves leisure to realise that the object of life is not that of incessant struggle; that the race is not always to the swift, but rather to those who understand the luxury and advantage of repose as well as of sustained effort. Real greatness does not depend on length of streets, nor height of houses, nor even on colossal fortunes; but rather on the wise application and equally wise conservation of energy and intellect. When Chicago ceases to be the city of perpetual haste, and adopts the pace which will be inevitably set for her by time, the names of her great workers will not be erased so early from the book of life, but will be preserved to give their beloved city many more years of really useful work. At present, I think there are no old men in Chicago, because they have no time to grow old; and giving themselves insufficient time for leisure, they have, as a necessary consequence, little opportunity for the higher culture which is born of leisure."

(To be concluded.)

[2] London: Eyre and Spottiswoode.

DISSECTING ANEURYSM OF THE THORACIC AND ABDOMINAL AORTA, THE INNOMINATE AND COMMON ILIAC ARTERIES.

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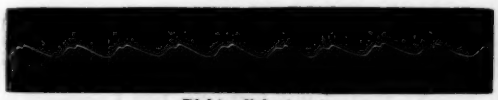
IT is so seldom that one meets with such an excellent illustration of dissecting aneurysm as was furnished by the case subjoined that I venture to crave for it a place in the pages of THE LANCET. We all know the meaning of the term "aneurysm." The prefix "dissecting" is intended to convey information as to the relationship which exists between the blood tumour and the three walls of the vessel. When the innermost layer of a large vessel—say, the aorta—ruptures, blood penetrates into the chink and gradually pushes out the remaining coat or coats of the vessel, according as to whether the rupture has involved the inner two coats or only the innermost lining of that vessel. In dissecting aneurysm, however, it is not so much a localised bulging that occurs as a stripping off or separation of two of the three coats in the wall of the vessel from each other—

either the internal from the middle coat, or the external from the middle, or the laminæ of the middle coat from each other; and to such an extent may this stripping off occur, both as regards the transverse and longitudinal axes of the vessel, that the aorta, for example, will seem on section as if it included another bloodvessel within itself. This is what, practically speaking, occurred in my case. The aorta included a smaller aorta within itself, composed of internal and middle layers of the normal wall of that vessel; and this not for one or two inches only, but throughout nearly its whole extent, from the commencement of the descending part of the arch of the aorta, down through the abdominal aorta to a point just above the division of that vessel into the iliac arteries, in which vessels again the dissecting aneurysm reappeared. The same tendency to dissecting aneurysm was present in other parts of the body, so that nearly all the large bloodvessels may be regarded as having been implicated in a morbid process, which was so general as perhaps to raise in the mind of many readers of these notes the probability of the patient having been the subject of aneurysmal diathesis.

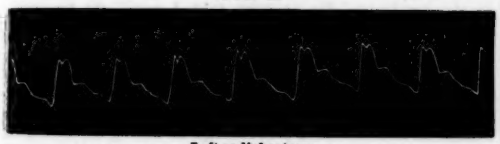
J. F——, aged fifty-five, of negro blood, a ship painter, widower, was admitted into the Royal Infirmary of this city on Sept. 2nd, 1890, complaining of shortness of breath and cough, and of ill-defined pains in the chest and back. Beyond the fact that he had syphilis many years ago, there was nothing in his family or personal history that called for remark. It was noted on admission that the superficial veins of the neck were distended, and that the apex beat was an inch below and slightly external to the nipple. There was dulness over the manubrium sterni, and here a peculiar creaking could be felt by the hand on gentle palpation. The pulse was 84; the right radial pulse was feebler than the left. Soft systolic and diastolic murmurs were heard over the mitral area and over the xiphoid cartilage. The softer blowing diastolic murmur was evidently conveyed from the aortic orifice. Over the upper part of the manubrium sterni, particularly towards the left side, there was heard a systolic murmur, which was extremely loud and rough; but to the right of the manubrium sterni, and underneath the first rib, the systolic was followed by a diastolic murmur. A loud rasping systolic murmur was heard in the arteries of the neck. Beyond the respiratory murmur being somewhat coarser than the normal, there was nothing noted in regard to the lungs. On examining the chest posteriorly, there was slight dulness on percussion between the scapulæ. A rough systolic murmur was heard over the supra-scapular area on each side. Over the right supra-scapular area a faint diastolic murmur was detected. This was not present on the left. The left brachial artery pulsated very freely, and rose visibly. There was no pulsation noticed in the right brachial artery. The difference in the pulsation of the right and left radial artery is shown in the sphygmograms. Beyond the presence of an occasional

FIG. 1.



Right radial artery.

FIG. 2.



Left radial artery.

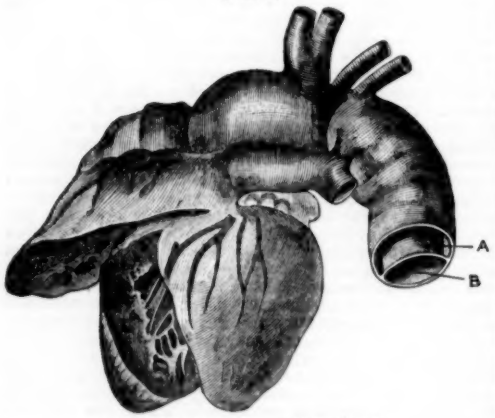
bloody streak in the expectoration, nothing unusual occurred during his residence in the infirmary. The diagnosis being aneurysm, the patient was treated by rest in bed, iodide of potassium, and calmatives, and under this he improved. In the month of December, 1890, he left the hospital.

The patient was readmitted on Nov. 17th, 1891, complaining of great difficulty of breathing, cough, slight swelling of feet, of pain in the left arm, and of increasing general weakness. There was nothing special to note regarding patient's condition since he left the infirmary a year ago, except the following:—The right radial pulse could scarcely be felt, the left radial artery was normal in size, and its pulse was water-hammer in character. The right facial artery could not be felt pulsating, whilst the left pulsated normally. The right carotid pulsated very feebly compared to the left. The urine contained a trace of albumen, but this gradually disappeared. There was still to be heard over the aortic area double murmurs, and in the lungs a few rhonchi and small râles, particularly at the base. Within a fortnight he had so far improved that he left the infirmary, but only to return on Dec. 19th, his symptoms having meanwhile increased in severity. The dulness over the manubrium sterni was now more pronounced, and a very distinct thrill was conveyed to the hand placed over it. The urine again showed the presence of albumen, and the expectoration contained small quantities of blood. The cardiac murmurs remained unaltered; there was marked pulsation in the episternal notch. The systolic murmur over the chest posteriorly was heard with greater distinctness to the left of the spine. The pain complained of was referred principally to the left side. The patient gradually got worse. On Jan. 25th, 1892, his pulse was 122; respiration 50; expectoration was occasionally bloody. There was œdema of both forearms, but this was more marked in the left. There was considerable œdema of the lower extremities. Cardiac murmurs remained as before; the diastolic murmur was heard principally to the right of the sternum; no tracheal tugging or whiffing. The whole of the manubrium sterni was very dull on percussion. The patient died on Feb. 2nd. All through the period of observation the patient suffered very little from dyspnœa; there was nothing at all paroxysmal in regard to it. His complaint was one of swelling of the feet and scrotum—long before, however, these became œdematous—and of uneasy flatulent sensations; also of an indescribable sense of feeling ill all over without being able to state where or how. There was never anything like the very severe pain which is present when an aortic aneurysm is pressing upon nerve or bone, but a sensation simply of feeling very ill without the patient being able to localise or describe his symptoms.

Necropsy.—Lower extremities œdematous. Lungs: fluid in left pleural cavity, but not much; right lung, adherent at apex, contained infarcts. Heart enormously hypertrophied, weighed with aorta 2 lb. 6 oz. Aortic arch was dilated. Aortic valves incompetent; left ventricle was hypertrophied and dilated. The innominate artery was dilated and thrombosed; the common iliac arteries were also dilated and thrombosed. On careful examination, the whole of the arch of the aorta was found to be dilated, and as this dilatation affected the ascending and descending portions of the arch, it gave to the transverse part a puckered appearance, the resemblance being not unlike an hour-glass. Slitting up the aorta, it was noticed that the bulging of the ascending portion of the arch was due to a dissecting aneurysm which had taken its origin about half an inch below the commencement of the innominate artery, and had passed down towards, and had almost ruptured into, the right auricle. Its capacity was such that it could contain a bantam's egg. The innominate artery just before it bifurcates was incompletely blocked by a dense, hard, white thrombus. This thrombus extended into and *completely* blocked the right carotid artery, whilst it also extended into the right subclavian artery (the block here was not complete—there was left a small channel by the side of the clot, and along this blood had easily passed). The right carotid artery, whilst it had its channel completely blocked, yet blood had passed into the upper reaches of that vessel by a channel which communicated with, or rather had taken its origin in, the dissecting aneurysm which arose from the ascending part of the arch of the aorta. In this way, and this only—viz., by a dissecting channel—had blood reached the right side of the face, there being a direct opening of this dissecting aneurysm into the normal channel of the carotid artery a little distance above the termination of the thrombus. The transverse part of the arch was puckered and atheromatous. The mouths of the left carotid and subclavian arteries were patent and healthy. At the junction of the transverse and descending portions of the arch of the aorta another dissecting aneurysm was observed. (Fig. 3.) It had an aperture which admitted the tips of four fingers. This aneurysm passed forwards and upwards almost to the origin of the left subclavian artery; here it only lay in front of the upper portion of the descending aorta. From this the aneurysm extended all the way down to within two inches of

the bifurcation of the abdominal aorta, but as it descended the aneurysm had become considerably wider; it had extended laterally so as to encircle two-thirds of the aorta. This dissecting aneurysm was formed between the middle and external coats of the vessel, so that when a cross-section of the aorta was made it was found to be composed

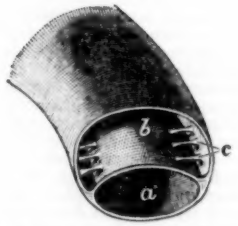
FIG. 3.



A, Dissecting aneurysm. B, Normal aorta.

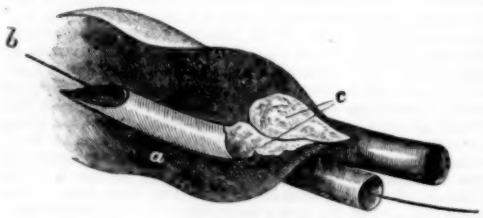
of a double tube (Fig. 4), the anterior (i.e., the larger) of which (*b*) was a dissecting aneurysm, and the posterior or smaller tube (*a*) was composed anteriorly of the middle and internal coats of the aorta; whilst the wall lying behind contained all the normal three coats of the vessel. On looking down through a section of *b*, numerous cord-like structures, evidently intercostal arteries, were seen running across the aneurysm from the antero-lateral wall. Possibly

FIG. 4.



a, Normal channel of aorta. *b*, Dissecting aneurysm. *c*, Small bloodvessels, cord-like in structure.

FIG. 5.



Common iliac artery laid open, showing:—*a*, Dissecting aneurysm *b*, Normal part of tube. *c*, Organised clot.

a few of the more delicate cords were simply enlarged and thickened vasa vasorum. Both iliac arteries were firm, and contained clot; they were equal in thickness to the middle finger. The channel of the right iliac artery was patent, but a dissecting aneurysm which commenced at the origin of the external and internal iliac arteries passed upwards in front of the vessel above the bifurcation of the abdominal aorta, but it was not in any way continuous with the dissecting aneurysm which extended from the arch of the aorta. The left iliac artery was extremely atheromatous, and contained several small calcareous plates. Lying in front of this vessel was also a dissecting aneurysm stretching from the upper part of the external iliac artery to the bifurcation of the abdominal aorta. Each dissecting iliac aneurysm was filled with firm white clot. So far as the heart was concerned there was not much to note. The mitral valve was healthy; the mitral orifice was dilated, it admitted the tips of four fingers; the wall of the left ventricle was half an inch thick; that of the right ventricle was extremely thin; the tricuspid orifice was dilated, and admitted the tips of six fingers. The liver was enlarged and nutmeggy; there was gummatous thickening of the capsule. The spleen was small. The kidneys were small, firm, and puckered on the surface.

This case of dissecting aneurysm was one of the most extensive that I find recorded. Fagge[1] reports a case where nearly the whole of the aorta was involved, the symptoms present being intense cardiac pain accompanied by cyanosis and pallor. Professor Finny[2] exhibited a specimen at a meeting of the Academy of Medicine in Ireland, where an aneurysm commencing in the thoracic aorta, about two inches above the diaphragm, dissected its way between the laminæ of the middle coat, along the anterior two-thirds of the vessel, down the whole length of the aorta, to the termination of the common iliac arteries. The aorta and iliacs were thus divided into double tubes. Although Professor Finny's patient was the subject of a dissecting aneurysm of very great dimensions, in his case, just as in mine, there were no special symptoms present such as would have enabled one to have diagnosed the peculiar nature of the aneurysm.

Newcastle-on-Tyne.

PASTEUR'S ANTI-RABIC INOCULATIONS.

BY T. WHITESIDE HIME, B.A., M.D., &c.

THE certainty and permanence of Pasteur's anti-rabic treatment, as proved by the only reliable test, experiment, are so remarkably illustrated by the following cases that I feel sure they will be interesting to readers of THE LANCET. And perhaps all the more so as I have personal knowledge relating to them, and do not report them merely as good news from those distant countries where the hills are always green. They are further illustrative of the never failing courtesy and kindness shown by Pasteur himself, Roux, and the other chiefs of the Institute, to all who are interested in the work carried on there. It will afford general pleasure when I add that quite recently I found Pasteur,

"Il maestro di color che sanno,"

in excellent health, and supervising the inoculation of the patients at the institute, of whom there were ninety-five, collected from all parts—Arabs of the desert, Belgians, Portuguese, French, and other nationalities.

CASE I.—While in Paris in October, 1889, I mentioned to Pasteur that I was anxious to make some inoculations with rabic virus, so as to test the efficacy of his preventive method, at the institute. He at once said I could do so, and, further, he was so kind as to direct that I should be provided with everything necessary for the purpose. That I should be anxious to do the experiments there will not surprise those who know the difficulties which surround research of this kind in England. We are practically obliged to accept unchallenged every alleged discovery from abroad as to methods of preventing and curing disease, &c., or else we must go abroad in order to test their truth without being molested. Operative and other methods of treating disease may indeed be tried here experimentally on men; but if anyone influenced by love of his kind prefers to test them first on lower animals, he will find that his path, if not absolutely closed, is a very thorny one indeed. The subject of this experiment was a bitch, which I named "Betty." The rabic virus used for the inoculation was the greatly intensified kind known as "laboratory virus." This virus

[1] Medical Times and Gazette, 1869.
[2] THE LANCET, vol. ii. 1885, p. 69.

originates with ordinary virus of the mad dog, which is now technically termed "street rabies." This street virus, when inoculated under the dura mater, is found to have a period of incubation which varies usually from sixteen or seventeen to twenty days, and kills within three or four days after the first symptoms have appeared. After passage through a considerable number of rabbits the street virus acquires gradually a shorter and less variable period of incubation, and ultimately it attains a degree of fixedness in this respect such as is hardly known in any other virus. The appearances of the initial symptom may with almost unerring certainty be expected between the fifth and the sixth day after inoculation, and death between the tenth and eleventh. The virus which I employed for the inoculation of "Betty" was this intensely strong virus, and was obtained from a guinea-pig which had died of rabies only a few minutes previously, on Oct. 4th, 1889. Having first chloroformed her, I trepanned and injected beneath the dura mater a few drops of the emulsified medulla of the guinea-pig. Immediately afterwards a rabbit was chloroformed and inoculated in the same way and with the same material, to serve as a witness. Inoculations of rabic virus under the dura mater invariably take, as do intra-ocular injections. "Betty" recovered immediately from the effects of the chloroform and operation, as is invariably the case when it has been properly done. On the day after the inoculation a course of preventive treatment was commenced for "Betty," but not for the rabbit, in order to see what difference there would be in the results. The former was treated according to the same method as the human patients, and like them received a series of injections of emulsified medullæ, the first of which was from a rabbit which had died of rabies fourteen days previously, while the last was only three days old. Each day, after the human patients had been injected at the institute, I obtained some of the liquid remaining over, of the required strength, and injected "Betty" subcutaneously with it. The result of the treatment was a perfect success; for whereas the rabbit which received no preventive treatment was attacked and died of rabies in the usual course, "Betty" had no kind of bad result from the inoculation. She lived a peaceful and evidently happy life, without any indication of disease, until at the end of over two years and a half she had to be sent to the happy hunting grounds in order to make room in the kennels.

CASE 2.—This is even a more remarkable experiment than the preceding. Unlike "Betty," the animals experimented on were first subjected to a course of preventive treatment, and were subsequently inoculated with rabic virus.—March 22nd, 1889: Three dogs, which may be called *A*, *B*, and *C*, received their first preventive injection of attenuated rabic emulsion containing medulla fourteen days old. The course of treatment was continued in the usual way until medulla of the third day had been injected. The subsequent history of these three dogs was as follows:—

June 1st, 1889.—The dog *A*, along with a witness dog and rabbit, were inoculated under the dura mater with fresh rabic virus of the street. The witnesses were both seized with the initial symptoms of rabies on the seventh day afterwards, and both died of rabies on the eleventh day, whilst *A* continued in perfect health. *B* and *C* were inoculated in the eye on the same day and with the same virus. This mode of inoculation, it may be mentioned, is as effective and certain as the subdural inoculation, and when done antiseptically (as every operation should be) causes no local disturbance whatever. No symptoms of rabies or any other untoward result followed this injection in the case of *B* and *C*.

Aug. 16th.—On this day *B* and *C* received for the second time an intra-ocular injection of rabic virus of the street, and a dog witness was inoculated at the same time. The witness exhibited the first symptoms of rabies on Sept. 2nd (the seventeenth day), and died on Sept. 5th (twentieth day) of paralytic rabies, while the dogs *B* and *C* continued in perfect health.

Nov. 27th.—The dogs *B* and *C* were inoculated in the eye for the third time with ordinary street virus (rabic), along with a dog and rabbit as witnesses. The dog and rabbit witnesses were attacked with the first symptoms of rabies on Jan. 2nd, 1890, and both died of rabies, while *B* and *C* suffered no harm whatever.

Dec. 17th, 1891.—The dog *A* was for the second time inoculated in the eye with canine rabic virus of the street, along with a rabbit witness. The latter was attacked with symptoms of rabies on Jan. 2nd, 1892 (sixteenth day), and died, as usual, of rabies, while the dog never showed any abnormal symptoms.

On the day of my last visit to the Pasteur Institute, April 15th, 1892, all three dogs, *A*, *B*, and *C*, were alive and in perfect health.

No commentary is needed on these remarkable cases, illustrating, in a way which leaves no room for doubt, the success of the Pasteur method in protecting against rabies, whether applied before inoculation of rabic virus or after. It is desirable, however, to draw attention to the fact that the animals experimented on were inoculated in a manner which never fails to take (under the dura mater or in the eye). It cannot, therefore, be assumed that they may have escaped infection in the same way as persons and animals sometimes do when bitten in the ordinary manner by rabid animals. These animals were subjected to a test which involves the certainty of infection and death from rabies, and yet the Pasteur method has proved sufficient to protect them. No animal or person is ever subjected to such a test in the ordinary course of life. But there is another point which forcibly illustrates the efficacy of the Pasteur method. The virus which I used for inoculating "Betty" was not the ordinary street virus derived directly from the rabid dog; it was much stronger—the laboratory virus (rabic), one which kills in far less time than is usually observed where infection has followed a bite by a rabid dog. If the Pasteur method can protect against the action of the intensified "laboratory virus" actually deposited on the surface of the pia mater after trepanning, is there not the strongest corroboration afforded to the other existing evidence that it can protect against the action of the ordinary, and much less active, virus of street rabies inoculated by a bite in the usual way?

The permanence of the protection is also shown in the most satisfactory manner. The dog *A* was preventively treated in March, 1889, and was found protected when inoculated for the third time on Dec. 17th, 1891. But there are many other witnesses of the durability of the protection who attest that it lasts very much longer. There are many of the dogs which were used by Pasteur for his earliest experiments nine and ten years ago still living which have been proved at recent dates to be still protected. I assisted myself in 1889 at the fourth inoculation of one of these dogs. The animal was trepanned for the second time, and inoculated under the dura mater without the least ill effect. This dog had also received a subcutaneous inoculation of rabic virus, as well as an intravenous injection, but proved refractory to all the four attempts to infect it. The *rationale* of the method is still involved in some obscurity, and up to the present all attempts to isolate the virus have failed. Neither microscopic examination nor the method of artificial culture has revealed anything distinctive. All the experiments which I have tried of cultivating in bouillon, in blood, and even in aseptic brain substance have failed, the virus invariably becoming inert, and, so far as I know, the results obtained by others have not been more successful. But I think it is not improbable that the *modus operandi* of the method may be strictly analogous to what is known to be the case with vaccinia and variola.[1] Vaccine takes about eight days to infect the system and protect it, while the variolous virus, being slower in its action, takes fourteen days, "the precise time being after thirteen times twenty-four hours have elapsed from the moment of taking the disease" (Marson). Suppose, then, a person to have absorbed the virus of small-pox on a Monday; if he be vaccinated on the ensuing Monday, Tuesday, or Wednesday, the vaccination will have time to take full effect and protect the system before the small-pox virus; if the vaccination is not done until Thursday, it will be partially effective, because the vaccinia will have already reached the commencement of the protective stage, while the variolous infection is still in its incubative stage, and the patient will have "modified small-pox"; if the vaccination, however, be delayed until the Friday, it will be useless—the variolous poison will have had time to infect the whole system before the vaccine virus.

[1] The employment of the term "vaccine" as signifying *any protective virus* in the recent sense—e.g., the "vaccine" of anthrax—is very unfortunate, and undoubtedly is calculated to lead to confusion. Jenner introduced the word vaccine to designate the virus of vaccinia, because the disease is derived from the cow (Lat. *vacca*, cow). It is indefensible to apply the same term to a different virus &c., derived from a different animal, especially when its employment in the special sense has been consecrated by long use, and has come to be universally understood to mean one thing only.

In the case of the anti-rabic preventive method analogy would seem to sanction a similar explanation. The virus of canine rabies, after several passages through the rabbit, acquires a period of incubation of from five to six days, while that of the ordinary rabid dog "of the street" is more than twice as long when inoculated under the dura mater, and is usually at least eight to nine times as long in taking effect after an ordinary bite. Hence there is time for the short-period rabbit virus to take effect before the long-period canine virus. The early protective inoculations are made with rabbit virus which has been modified (attenuated or diminished in quantity?) by keeping,[2] and is incapable of producing rabies, but the later doses are capable of causing rabies when inoculated on an animal not protected by previous weak doses. This last fact is in itself an indubitable proof of the efficacy of the treatment, and is observed among the human patients as well as animals. The whole procedure is therefore dependent on Pasteur's discoveries of how to abbreviate the period of incubation of the virus by passage through the rabbit, and how to inoculate so as to produce the disease with positive certainty by intra-cranial or intra-ocular inoculation.

Those who are aware of the preceding facts cannot but be lost in amazement at the combined ignorance and audacity of those who assert by word and print that the protective virus is regularly obtained from dogs. The assertion is made to create prejudice against a scientific method of saving human and animal life. The allegation that the noble dogs, man's faithful companions and friends, are sacrificed in a wholesale way to save the life of that brute man, is a safe way to excite the passion of certain people, even though the allegation is devoid of truth!

There are persons who are not afraid to assert that the deaths of the control animals are due to the operation, either through shock or by septic infection. The answer is simple: 1. It is impossible to extract from an animal which has died of "shock" a specific virus which has an invariable period of incubation, kills with certainty within a definite period, and can be inoculated on other animals in series *ad infinitum*, so as infallibly to reproduce the same disease ("shock," it may at the same time be observed, is not in any sense a "disease" of a specific type). 2. The symptoms of rabies and those of shock are absolutely different. 3. The brain of the animal is not injured during the inoculation. If it be intentionally injured, without the introduction of rabic virus, the animal will show none of the symptoms of rabies, even if it should die (which depends on the extent of the injury). 4. The death is not due to septic infection, for (*a*) the symptoms are utterly different, and (*b*) the medulla of a rabbit which has died of septicæmia caused by the subdural injection of septic matter will not give septicæmia when inoculated in the same way into another rabbit. That the operation is *per se* harmless is evident to those who have seen rabbits which have received injections of inert substances (distilled water, bouillon, healtoy medulla, &c.) under the dura mater. Within a few minutes after the operation, and immediately after the effects of the chloroform have passed off, these animals will run about, eat, and indulge in their gambols, unconscious of what has happened. Their after-lives, free from pain or ache, or any variation from the behaviour of other rabbits, prove that the operation does not affect them in any way injuriously. Of course a bungler may do damage in performing this operation, just as a barber, instead of shaving his victim, may by a mistake cut his throat! Up to the end of 1891 there had been treated at the Paris Institute a total of 10,992 persons, of whom 62 died, or 0·56 per cent. The rate of mortality has steadily declined from 0·94 in 1886, to the remarkably low figure of 0·19 in 1891. Of the 1563 cases treated in 1891, no fewer than 42 were from this country. The remarkable success of Professor Murri, of Bologna, in curing a patient, already attacked by hydrophobia, is perhaps the most startling outcome of Pasteur's method, being a fresh victory for science over a disease which has hitherto proved invincible. I hope to give full details of this most interesting case in a future number of THE LANCET.

Bradford, Yorks.

[2] The rabic virus can also be attenuated by passage through the monkey. A dog inoculated with rabic virus after passage through five monkeys showed an incubation period of no less than fifty-eight days, although it had been inoculated in the arachnoid space. In his earlier experiments Pasteur employed the virus thus attenuated for protective inoculations, but owing to the difficulty of dealing with such delicate and scarce animals, he abandoned it. The modifications of the rabic virus by passage through different animals, intensification by passage through rabbits, attenuation by passage through monkeys, are strictly analogous to the behaviour of the virus of swine plague (*rouget*), as described first by Pasteur, Dec. 26th, 1883 (Bull. de l'Académie des Sciences). The virus of this disease becomes much intensified by passage through the pigeon, the period of incubation is shortened, and death ensues sooner. The virus is also rendered more fatal to pigs. But if the virus taken from the pig be passed through a series of rabbits it will be found that, though it continues fatal to them, it becomes so attenuated that it may be inoculated on pigs without the least danger. Indeed, this attenuated virus is employed by Pasteur as a protective against the most virulent form of the infective agent. Pigs may be inoculated with the latter after protection with the former, and will be found to have acquired complete immunity. This condition does not last as long as the immunity conferred by Pasteurian inoculations against rabies, as shown above, only holding good for about one year. But it is rare, indeed, for a pig to reach a much more advanced age than twelve or fifteen months, that being the flower of his age, during which he is killed. It can hardly be doubted that vaccine is the virus of variola, modified in an analogous way by passage through bovines, and that herein lies its power in protecting against small-pox.

THE HOLY PLACES OF ARABIA: THEIR WATER-SUPPLY AND GENERAL SANITARY CONDITION.

BY JOHN WORTABET, M.D.

THE Koran enjoins pilgrimage on all believers who are able to perform it, as an absolute duty which cannot be neglected without great offence to God. This condition of "ability" is explained by the most eminent school of Mohammedan theology as including health, safety of the way by land and sea, and the possession of a sufficient amount of money to discharge the intending pilgrim's debts, to provide for his family during his absence, and to enable him to make the journey with comfort on a camel or other beast of burden. The two chief places which are annually visited by Mohammedan pilgrims are Mecca and Medina—the first containing the sacred mosque called "The House of God," and the second having the tomb of the Prophet. They both lie inland, and are accessible to pilgrims either from Damascus through the desert, or by the Red Sea and Tidda, which is the port of Mecca, while Yambu holds the same relation to Medina, though very few pilgrims go into Arabia or come away from it through the latter port. The route most generally followed is the sea voyage to Tidda, a journey to Mecca and Medina, and a return to Mecca and Tidda, the whole pilgrimage taking usually about four months. The Mohammedan month Za'l Hijja ("the month of pilgrimage") is that on which the pilgrims are gathered at Mecca and Medina, and as the Mohammedan year is lunar, with no intercalary month every three years to make up the difference between it and the solar year, the month of pilgrimage recedes by ten days every year, and is thus ever changing its relation to the seasons. The annual number of pilgrims must vary from year to year, but it is computed by the most reliable observers as being from 50,000 to 80,000. No Christian is allowed to visit these holy places, and our sources of information are the accounts given by Arabian writers, Mohammedan visitors, and the Christian travellers Ali Bey (1807), Burckhardt (1814), and Burton (1853), who made the pilgrimage under assumed Mohammedan names. To these must be added the valuable report of Assistant Surgeon Abdur Razzak, who was sent by the Indian Government to accompany the pilgrims in 1878–1879. From these several authorities, and from the annual reports to the Indian Government by its agents, the following abstract is made:—

Tidda is a town of about 20,000 inhabitants, and is built, to the extent of a mile in length, on a slight eminence of land which rises from the sea-shore. It contains a number of large lodging-houses for pilgrims, built in flats, each room taking from ten to twenty people, and they are often highly crowded, while the uncleanly habits of the occupants and the insanitary condition of the latrines combine to produce a fruitful source of disease—such as fever, dysentery, and diarrhœa. The sewerage system is the same as in other Oriental towns; the excreta are conducted by depending passages into sinks, which may or may not communicate with each other, and where, partly by absorption into the soil and partly by exhalation into the atmosphere, the sewage is disposed of. The streets are supposed

to be swept every day; but this is said to be carried out only in the market place, while the by-streets and alleys are unattended to, and are often beds of accumulated refuse and dirt. From 30,000 to 50,000 pilgrims pass through the town every year to Mecca, and again on their return. Fortunately their stay is short, and they come and go in parties. The water-supply of Tidda is provided by large tanks of rain water, which, however, are often insufficient, and it is said that a benevolent Mohammedan from India has lately brought a large and wholesome supply from the springs of Hadda, a midway station between Tidda and Mecca. Mecca is about forty-five miles due east from Tidda, and the journey is generally made on two successive nights—most of the day between them being spent at Hadda. The road is sandy and barren, and soon leads to the hill country, where Mecca is situated at the height of 2000 ft. above the level of the sea. Soon after leaving Hadda two high pillars indicate the boundary of the Holy Land, where the pilgrim puts on his garb of two seamless cloths, one around his loins and the other to cover the upper part of his body, leaving the head bare, and begins his cry of "Allahumma labbarik," which he continues from time to time throughout his stay within the sacred precincts, and which means, "Here I am, O God, in obedience to Thy call!"

Mecca lies in a narrow and sandy valley, which is described in the Koran as being "sterile," and which extends from north to south. The hills which form the two sides of the valley rise to the height of from 200 ft. to 500 ft., black, waterless, and utterly barren, and are, according to Ali Bey, of granite formation. The town occupies the broadest part of the valley, though many of the houses are on the sides of the hills, and is about three miles long. The population is estimated at more than 50,000, and is doubled or trebled during the season of pilgrimage. The main street which runs through the town is broad, and kept clean by daily sweeping, while the other streets are from ten to twelve yards wide, and are described by the latest visitor—Dr. Abdur Razzak, 1879—as being wholly neglected and extremely dirty. The houses are built of stone, and vary from two to five storeys in height, with numerous windows towards the streets; but the rooms are generally small, the ceiling low, and ventilation and the admission of light imperfectly provided for. Most of these houses are let during the annual season to pilgrims who are able to pay for them. A good number of large lodging-houses, built by rich and benevolent Indians, receive freely the poor class of their countrymen. The air is said to be dry, and would be bracing if it were not for the great heat. Abdur Razzak speaks of a high temperature in December, Benton says that clothing was intolerable during the day in September, and Ali Bey, who seems to have been the only one who took any thermometrical records, puts the maximum heat in February at 87°, and the minimum at 67·5° F. The latter saw but one flower during all his stay at Mecca (from January 23rd to March 2nd), and that was on his way to Arafat. He says: "The aridity of the country is such that there is hardly a plant to be seen near the city or upon the neighbouring mountains." All the vegetables and fruits consumed in Mecca are brought from Taïf, a well-watered and fertile plain, two days' journey due east.

The sewerage of the houses and the system of drainage are described by Dr. Abdur Razzak as follows. After speaking of the situation of the waterclosets as being always at or near the entrance of the house or a section of it, if it is large, he says: "There is no proper outlet for the water of these privies, or for the excretions (nightsoil), nor is there any system of drainage in the city. Not a sewer or a surface drain exists. Rain being scarce and the soil very dry, there is not much necessity for drains in the opinion of the inhabitants. The only drainage arrangement in all the houses is that a central deep drain is cut out in a convenient part of the house, and with it all the privies in the house are connected by covered drains, in which the slope is very great, so that anything falling or lying on the highest end is very quickly washed down into the central drain. Besides these, a very large and oblong pit is dug out in the middle of the street, opposite the house, which answers the purpose of a cesspool, and with it the central drain of the house is connected." As a natural consequence, he says, the exhalations are highly offensive and noxious.

The original water-supply of Mecca consisted of a few cisterns of rain water and some brackish spring wells, of which the famous well of Zemzem is one. These latter are said by Ali Bey to be of the same depth and temperature, and he believes that they are all supplied by a sheet of water fifty-five feet under the surface, and formed by the percolation of rain water through saline materials, which give it a brackish taste. None of these wells, however, are now used except that of Zemzem, which is reputed to be the spring pointed out to Hagar by an angel, and whose waters are drunk by all pilgrims on religious grounds. The present water-supply is amply furnished by the aqueduct known as that of Zobaida. This lady was the wife of Harun-ar-Raschid (A.H. 170), and having made a pilgrimage with her husband to Mecca, and observed how highly meritorious it would be to provide the holy city with abundant and wholesome water, undertook the great task of having it brought from a considerable distance. Arab historians have given us a detailed account of this stupendous work, which cost more than two millions of pounds of our present currency. The water was conducted in an aqueduct of solid masonry from two copious springs, which take their origin from a chain of mountains to the east of Arafat, and to which six other fountains were added in the plains which lie between this hill and the eastern mountains. The aqueduct, after surrounding Arafat, where all the pilgrims gather on the 9th of Zu'l Hijja, follows their way by Muzdalafe and Muna to Mecca. During the eleven centuries which have passed since its first construction it has often been out of repair, and the water ceased to flow, to the great distress of the pilgrims. Restored in A.H. 634, 726, 811, 821, and 875 by Mohammedan kings or princes, the water became again so scarce in 930 that the historian El Hanafy, who was there in that year, witnessed the great sufferings of the pilgrims, and bought at Arafat a small water skin for a piece of gold. The work of reparation was taken up this time again by a lady—the wife of Solyman the Magnificent,—who, in A.H. 969, appointed able and energetic men to execute her orders. They cleared the original springs of Hunain and Noman to the east of Arafat, repaired the aqueduct as far as Zobaida's Well beyond Muna, and channelled the rock to the distance of 2000 yards into Mecca. This work was executed in ten years, and was as thoroughly done as that of Zobaida; and since that date, with occasional repairs, the water has been abundant.

Abdur Razzak says that the water is very sweet and light, and is supplied by means of five or six reservoirs distributed in different parts of the city. The largest of these is near the market place, where the water is let out through a number of perforated holes into a shallow trough, and where the professional water-carriers fill their water skins directly from the taps. "There is a stopcock at the mouth of the aqueduct, and there are stated hours at which the cock is turned open and the water carriers are allowed to fill; no water can be had after nightfall." Burckhardt (A.D. 1814) says that remains of the aqueduct were seen in the lowest part of the city, "and its water, after supplying the town, was conducted this way into the southern valley, where it served to irrigate some fields." The mosque of El Kaaba, or *Beit-allah*, occupies a central portion of the town. It is believed to be built after the pattern of a similar structure in heaven, which is ever circumambulated by advising angels. In like manner, the pilgrim does the same duty in his prescribed garb, and offers his prayers at the holy spot. While this is the most essential part of pilgrimage, other duties incumbent on the pilgrim are to attend the prayers and sermon at Arafat on the ninth day of "the month of pilgrimage," to return to Mecca on the following day for the great Feast of Sacrifices, and to visit the Prophet's tomb at Medina.

Arafat is a hill (the "Hill of Mercy"), where it is believed Adam first met Eve after their expulsion from Paradise. It rises to the height of about 200 feet from a plain some ten miles long and five wide. All the pilgrims encamp on that day in the plain below, while the Kadi of Mecca preaches the annual sermon of three hours' duration on the hill, the people spending the time in prayer, and calling out the formula *Labbarik!* ("Here I am, O God!") The aqueduct of Zobaida runs round the hill, and supplies the pilgrims with abundant water. The water is let out into basins, of which Ali Bey (A.D. 1807) counted fourteen, "which furnish a great abundance of excellent water, and which serve also for the pilgrims

to wash themselves." In the times of Abdur Razzak, "there were three of these large tanks, from which people were allowed to take away as much water as they liked, but nobody was allowed to wash anything in it. A Turkish soldier, with fixed bayonet, but in a pilgrim's garb, was standing guard over each. During the day, however, when the ceremonies of the Haj were going on, the attention of these guards being diverted from their duty, the water had become dirty from the people not taking care when they filled their water skins at the edge of the tank." Arafat lies about twenty miles (Burton says only twelve miles) due east of Mecca, and, according to Ali Bey and Burton, is chiefly of granite formation. It is on the plain, where all the pilgrims are encamped for one day, that an approximate guess can be made of their number. Ali Bey (1807) estimates it at 83,000; Burckhardt (1814), 70,000; Burton (1853), 50,000; and Abdur Razzak (1879), 60,000. The Mohammedans believe, on the strength of a well-sustained traditional saying of the Prophet, that if the number is ever less than 600,000 the deficiency is made up by angels in human form. Leaving Arafat at dusk of the same day the pilgrims start for Muzdalafe, where they spend the night, and reach Muna on the following morning. Muna is the place where animals are slaughtered as an offering to God, in commemoration of the sacrifice made by Abraham of a sheep instead of Ishmael, his son, whom he had been commanded to offer. This is the great feast of the Mohammedans, and is called the "Feast of Sacrifices." Muna is described as a long and narrow town, situated in a hollow, where the heat is very great even in December. Here, on the 10th of Zu'l Hajja, all the pilgrims meet again, and the sanitary arrangements are said to be most unsatisfactory. The main street alone is kept clean, the watercloseta are few and badly constructed, and the crowding in both the houses and in the open is very great. The slaughter-houses, where several thousand animals, chiefly sheep, are killed, are few, and the trenches dug for receiving the carcases are insufficient for the purpose. Before the pilgrims leave the place the odour, owing to speedy decomposition, becomes not only highly offensive, but very noxious. The number of sheep killed is uncertain, for while Burton estimates it at 6000, Abdur Razzak raises it to something like 100,000. The latter says that many fall ill with vomiting, diarrhœa, dysentery, and fever, either then and there or soon after their return to Mecca. In Burckhardt's time (1814) it was even worse. He says: "Poor Hadjys, worn out with disease and hunger, are seen dragging their emaciated bodies along the columns of El Kaaba, and when no longer able to stretch forth their hand to ask the passengers for charity, they place a bowl to receive alms near the mat on which they lay themselves. When their last moments approach they cover themselves with their tattered garments, and often a whole day passes before it is discovered that they are dead."

The water-supply seems to be now abundant, and is sold to the pilgrims in small water skins. The distance from Muna to Mecca is about four miles, and the pilgrims return on the third day of the feast to the holy city to perform what is called "the lesser pilgrimage," which means a short journey of a few miles from Mecca, a return to it in the pilgrim's garb, and circumambulating El Kaaba. If the pilgrim has not visited El Medina before coming to Mecca he now does this duty. The distance between these two places is twelve days' journey—slightly up-hill—and the stopping stages are always made where there are wells of water, from which the travellers can be supplied for the night, and where they fill their water skins for the following day. The quality of the water is mostly saline, and drinkable only from necessity. El Medina ("The City," or the City of the Prophet) is a town of about 20,000 inhabitants, lying in a vast plain, bounded by two chains of hills to the east and west, and is supposed by Mr. Doughty to be about 3000 feet above the level of the sea. After the great heat of Mecca, Abdur Razzak found it very cold, the thermometer falling to 56°. Its streets are kept clean and daily inspected by zaptiehs. "The water-supply," he says, "is the best in the Hedjaz, and perhaps it would be creditable to any civilised country of the present day. Underground aqueducts run through the whole city, and in every quarter there is a reservoir below the level of the ground, with stone steps leading to it, where stopcocks, arranged in a row, regulate the expenditure of water, and where water carriers fill their water skins. A stream of the purest water, which commences at Kubba, a place about two miles from the city, flows through it, and after passing through the aqueducts is carried out of the city to water the date plantations, which are plentiful around Medina." The public latrines, he adds, are more plentiful and far superior to those in Mecca, "and as the government of the place takes care not to have more than a certain number of pilgrims during a given time, there is never any crowding." "If the air of Medina had not been so bracing, every pilgrim would have fallen sick after the privations suffered on the journey from Mecca." The chief object of visiting El Medina is to see, and to pray near, the tomb of the Prophet and his immediate friends. The stay there does not generally exceed a week. The pilgrims then separate, some to return by land caravan to Damascus, which occupies about thirty stages, some to Yambu, the seaport of El Medina and about four days' journey from it, and the largest number to Mecca and Tidda.

In comparing the accounts given by trustworthy travellers who visited these places during the present century (1807–1879), we find a marked improvement in their sanitary condition. This is doubtless due to the better government of these days, especially under the rule of his Majesty the present Sultan, who is well known to take a special interest in those hygienic measures the value of which science and experience have put beyond all doubt. From the later reports of the Sanitary Commission of India (1884–1890) we have a gratifying confirmation of this fact, for they all tell of annual efforts, more or less strenuous, made by the local authorities to improve the water-supply, the surface cleanliness, and the prompt and more effectual burial of slaughtered animals at Muna. The tanks of water are cleaned and drained, and guards see that no water at Mecca is used except that taken directly from stopcocks. A generous Indian prince (the Nawab of Rampur) has "constructed a large reservoir in Muna, fed by a branch of the Zobaida aqueduct. The water from this reservoir was drawn (1886) from stopcocks, and measures taken to prevent the pollution of the stored water. The reservoir, however, is not large enough to supply water to all present, and it is reported that at least two others would be necessary for all requirements." Muna, which has always been noted for its filthiness, was remarkably clean in 1886; but there is still much room for improvement. Engineering skill in conveying pure water and keeping it free from the possibility of pollution, stringent measures for insuring perfect cleanliness of all the streets and alleys, improved sewerage, the prevention of overcrowding, a thorough disposal of the sacrificed animals at Muna, greater efficiency of the hospitals of Mecca, Medina, and Tidda, rigid inspection of pilgrim ships coming from infected places, and, in case of an epidemic, the dispersion of pilgrims as soon as they have performed the duties prescribed by their religion, which was wisely ordered by the authorities this year (1891) on the outbreak of cholera among them with very considerable success, are means which the Turkish Government alone can carry out, and which will do much to diminish the violence of epidemics, disease, and mortality. It has always been the glory and ambition of Mohammedan kings to do their utmost for the safety, well-being, and comfort of pilgrims, and it may now be the most glorious act of the reign of his Majesty the present Sultan to see that the most approved principles of modern sanitary science are efficiently carried out in the holy places of Arabia. But on the Indian Government also lies a large share of responsibility. For not only is there the fact that cholera, which has visited Arabia in 1883, 1890, and 1891, during the last few years, is always imported from India; but, according to the *Times of India* (quoted in *The Times* weekly edition, July 10th, 1891), more than a third of the pilgrims leaving Bombay for Mecca never return. "Thus, of 64,638 pilgrims who left in the six years ending 1890, 22 449 were missing." Surely for this appalling list of mortality and unrecorded suffering the Indian Government should devise some preventive means which may be within its legitimate power. The measures indicated by Abdur Razzak may be adopted, in which modification, and if properly carried out, so that no pauper and no diseased person, or one coming from some part of the country where cholera is known to exist, may be allowed to leave India, this great evil to the Indian pilgrims may be very materially diminished, and the chances of the migration of cholera

with them into Arabia and other adjacent countries considerably lessened if not wholly extinguished.

ANALYSIS MADE IN THE LANCET LABORATORY OF WATER TAKEN FROM HAGAR'S WELL AT MECCA.

In connexion with the above article, we have been favoured by Dr. Wortabet with a sample of the water from the Well of Zemzem, or Hagar's Well, obtained on Jan. 13th last from a returned pilgrim. It will perhaps be within the recollection of some of our readers that a similar sample was forwarded to us in November, 1883, by Dr. W. G. Balfour, and the results of the analysis made for THE LANCET by Professor Heaton were published in our issue of Jan. 5th, 1884, page 33. Nearly nine years, therefore, have elapsed since that sample was taken, and it is interesting and instructive to compare the results of analysis obtained with this sample with those of the sample secured in January last, inasmuch as any difference indicating whether the condition of the water has altered for better or for worse over that comparatively long period will at once be apparent. As a glance, however, at the analysis below will show, what was said of this holy liquid nine years ago may be said of it again at the present time. There are indications that the water is still grossly polluted, although apparently not to the extent reported hitherto. The results of analysis of the two samples bear a distinct resemblance to one another—at any rate as regards kind if not in quantity of impurity. Thus the entire absence of the so-called albuminoid ammonia is again a striking feature in the analysis, and is probably attributable to the completion of the putrefactive process. The nitrates and nitrites are in excessive quantity, and the presence of the latter, which result from the reduction of the former, indicates pretty nearly for certain the pre-existence of readily oxidisable matter, such as sewage. The nitrites occur in so large a quantity that a few drops of the water expel the iodine in an acidified solution of potassium iodide, and also turn to a deep yellow colour, a solution of di-amido-benzene—Griess' well-known reagent for the detection of nitrites. Unfortunately, as the quantity of water at our disposal was only 300 cubic centimetres—a separate estimation of nitrites could not be carried out. The addition of sulphate of iron and strong sulphuric acid to the unconcentrated water resulted in the formation of an intense brown colour, due to disengagement of nitric oxide gas from the nitrates and nitriter. The excessive proportion of free ammonia further testifies to the changes that have taken place consequent on the oxidation of organic matter. Chlorine present in chlorides is extremely high—indeed, the water had a slightly brackish taste, and the total solid matter though considerably less than before afforded distinct evidence of the existence of phosphate. The two analyses are given below, and for the sake of comparison an analysis of the water supplied to London by the Thames companies is appended.

	Grains per Gallon.		
	Mecca.		London.
	1883.	1892.	
Total solids	464·4	235·2	18·00
Chlorine	75·5	40·7	1·5
Nitrogen as nitrate	13·75	4·55	·18
Nitrogen as nitrite	·09		None.
Ammonia	·358	·140	·001
Albuminoid ammonia	None.	None.	·004

Stanley Lane Poole wrote in reference to the analysis in 1883 as follows:—"The analysis of this miraculous water will cause a severe shock to all true believers who read THE LANCET, though from what one knows of the sanitary methods of the East there is nothing surprising in the discovery that the Well of Zemzem is as foul as a good many other saintly springs. Zemzem is in the midst of a thickly built city, where drainage is of a peculiarly primitive description, and the well is almost necessarily affected by the drainings from the countless carcases of beasts which are annually sacrificed by the pilgrims in the neighbouring valley of Muna. It is, however, some satisfaction to remember that muddiness as a source of inspiration has never been held a bar to miraculous effects. Zemzem will doubtless work wonders in spite of the 'completion of the putrefactive process.'"

Our recent analysis indicates that the putrefactive process is still going on, and it follows that the ingress of putrefiable substance has again been permitted.

OUR MISTAKES.

By WILLIAM MURRAY, M.D., F.R.C.P. LOND.

(Concluded from page 1022.)

IT is interesting to observe how often our cases run in pairs or groups. With the last case fresh in my mind I was called to see a gentleman in the north. On going into his room his wife said, "Do not bother him by many questions." On asking him to tell me of his complaint briefly, he, pointing to the inside of his thigh, said, "I can tell you in three words, 'It is pain there.'" I asked for vaseline, examined the rectum, and found a malignant mass in the pelvis—a sad solution of a case which had misled two excellent practitioners to suppose he suffered from disease of the pelvis of the kidney. These cases show how narrowly we sometimes miss a diagnosis, and show how important it is to take note of these slight and faint hints if we are to save ourselves from failure. We must, however, take heed lest a great success in diagnosis and treatment unduly impresses itself on our minds and we begin to seek for the same thing, and do the same thing in every case. It is easy to yield to this temptation, and we need to guard ourselves. I have again and again seen even great men plant their favourite diagnosis on the most unlikely cases. Two or three patients of a really great physician came to me a few years ago, each stating they had irritation of the ureter, until at last I was able to say, "Oh! I see you have consulted Dr. So-and-so." In each of these cases the true ailment proved to be lateral flexion of the uterus. Not that I have escaped this mental infection, as I am free to admit I may probably have treated irritated ureter for lateral flexion. Nothing short of a large view and a well-balanced mind can save us from this kind of thing.

An illustration of another kind of mistake which sometimes occurs as the result of a paucity of experience and a good deal of science may be here introduced. It also illustrates the danger of the so-called *nimia diligentiæ* in treating a case by everything but the right thing. I was called to see a favourite child of wealthy people in Yorkshire said to be suffering from inflammation of the brain. I found a strong plethoric child, with flushed face and suffused and congested eyes. He was suffering from pain in the head, restlessness and great irritability, together with anorexia and a coated tongue. He was in a darkened room, two nurses were in attendance, and an apparatus for circulating iced water over the head was in active operation. The temperature was taken at frequent intervals, and repeated doses of aconite were being administered. The expression of the child's countenance and his evidently clear intellect did not convey the idea of meningitis to my mind, and I asked when his bowels had acted. No one quite knew, and it was clear they had not acted for a day or two. I gave my opinion to the medical attendant that it was a case of disordered secretions, and insisted on giving three grains of calomel, followed by a dose of senna. We met again in a few hours, and found the patient sitting up in bed quite cheerful and comfortable, after a free purgation, and he was soon quite well. I do not mean to cast any reflection on what is called scientific medicine, but I think an old-fashioned doctor would probably have purged at the outset and saved all this bother. Let us never forget the marvels achieved by our old friend calomel.

To omit the abdomen as the most fruitful field of all sorts of mistakes would be to omit the character of Hamlet from the play. The many different organs contained in it ministering to functions so different as digestion, excretion, assimilation, and reproduction give rise to such enormous varieties of physical signs and symptoms that it would be strange indeed if we did not often fail to make an accurate diagnosis and use appropriate treatment here. Added to this is the ever-varying condition of the abdominal walls, due to dis-

tension and emptiness of the hollow viscera, the engorgement of the solid organs, and the amount of abdominal fat which often comes and goes with remarkable rapidity. These difficulties, from complication of organs and their changeable condition, can hardly be said to exist in the head or chest, but they are somewhat compensated for by the ease with which the abdomen can be manipulated.

To mention a few of our chief difficulties is all that can be accomplished in a short address. First, there are those connected with abdominal aneurysm, on which a book might be written, and an amusing one, for I shall never forget, when preparing an article on this subject, the extraordinary hits and misses in diagnosis which turned up in looking through the scattered literature of the subject. Existing aneurysms had been diagnosed as renal, hepatic, ovarian, and uterine tumours, and conversely nearly every variety of abdominal tumour, and often "no tumour at all," has been diagnosed as aneurysms. My well-known case of aneurysm of the abdominal aorta was at one time treated for lumbago, and was subsequently said to be a fæcal accumulation by a man of great experience. The pelvic department of the abdomen is even more dangerous ground than the abdomen proper. It is here that confusion still reigns, as evidenced by the number of so-called exploratory incisions now made in that region. A good book on the diagnosis of pelvic disease is still wanted, but I doubt if the data for it have yet been obtained. The almost infinite variety of conditions brought about by pregnancy and menstruation almost defy classification, and thus general rules are almost out of the question. For instance, ovarian tumours, simple as their diagnosis generally is, often deceive the most experienced, and we must not rely on general rules even here, or the opened abdomen may possibly stagger our nerves and try our resources. Twice over I have been misled by trusting too much to a resonant note in the flank and a dull abdominal dome, where I discovered our mistake to be due to the fact that the intestines were bound down by adhesions in the lumbar region so closely as to give resonance there in ordinary ascites. Then, again, there are mistakes attaching themselves to pregnancy, about which some experienced accoucheur might give a highly interesting discourse. I recollect a startling case where a patient was about to be admitted to an institution for the removal of an ovarian tumour; but her own doctor thought he would like to do the operation himself, and sent her to me to confirm the diagnosis. Labour pains came on while she was in my waiting-room, and she had just time to reach home in a cab before she was confined. Then, again, there are those trying cases of women who marry late in life, and, being possessed by a longing to have a child, arrive at the menopause and begin to swell visibly. Beware of such women. If you say they are not pregnant they will not believe you, because "they feel a movement which cannot be mistaken." If you for a moment favour their wishes, and incautiously admit it may be so with them, you have staked your reputation on a broken reed, and a day of reckoning lies in store for you some few months hence, "when it does not and will not come off." To be called in under such circumstances is one of the most trying and delicate tasks for a consultant. By a word or a look he may shatter his friend's reputation throughout a wide circle; and yet the truth must be told, either abruptly or—far better—by a gradual undeceiving of the patient's mind.

Far more serious difficulties surround us when we are face to face with ectopic or tubal gestation. A certain diagnosis in many of these cases is impossible without the exploratory incision, and even then the complications may prevent a satisfactory diagnosis—nay, more, I have seen a case of this kind so complicated that a post mortem examination failed to reveal the true state of the case. These are cases of the third order, in which a faulty diagnosis casts no blame on us. Let me give a history of a case illustrating the extreme difficulty or impossibility of arriving at a certain diagnosis. I do so the more readily because I believe the case is unique.

Some years ago the late Mr. John Hope and I saw a patient suffering from intolerable pain in the testes. Both testicles were enlarged, the left as large as a goose's egg, the right slightly smaller. As the enlargement and sufferings increased, especially on the left side, we decided to remove that testicle. On doing so we found a healthy testicle encased in dense concentric layers of suet-like fat about an inch thick. The relief obtained made the patient urgent to have the right testicle removed too, which was done with complete relief. Some months afterwards this man came to me again in a deplorable condition. His body was emaciated, but the abdomen had become enormously enlarged and extremely painful. The abdominal swelling was uniform and dough-like on palpation and absolutely dull on percussion, without any evidence of fluctuation. His chief symptom was a mucous diarrhœa over which remedies had but slight control. He died of exhaustion. On making a post-mortem examination, we found the enlargement was entirely due to the presence of hundreds of fatty tumours scattered throughout the folds of the peritoneum. The mesentery was a mass of them. They varied from the size of a pea to that of an orange, and each was composed of concentric layers of suet-like fat similar to that found around the testicles. The smallest were concentric as distinctly as the largest. The most remarkable developments were in the appendices epiploicæ, each of which extended into the abdomen like a large bunch of grapes studded with fatty nodules. We might, if we had had a similar experience, have divined from the testicular encasements the real cause of the abdominal enlargement; but, lacking this, I think it was impossible to make a sure diagnosis. But I must draw this part of my subject to a close, or I should like to have alluded to the difficulties which surround the medical man who is called to see a patient in the initial stage of any of the acute febrile diseases, especially of infectious diseases. If he speaks of his suspicion too soon he may find he has given needless alarm; if he hesitates too long he may be blamed for not speaking soon enough. A wary outlook, an expectant state of mind, and a knowledge of human nature are all needed to save him from a false position. Lastly, the mistakes which occur in the treatment of disease may be divided into those arising from a false diagnosis and those in which the wrong remedy is used where the diagnosis is correct. I need not say that for the most part a false diagnosis is the cause of most of our mistakes, but this has already been dealt with. With regard to the misapplication of the treatment when the diagnosis is correct, I may say this is often owing to the want of a true appreciation of the temperament and constitution of the patient, whereby we are led to give what is good enough for the disease, but bad for the patient. Let us ever remember, therefore, that we are treating patients as well as diseases, and what may, rigidly speaking, be the right thing for the disease is often the wrong thing for the patient. Take the case of tonics, such as iron and quinine. I know of nothing which has destroyed the confidence of patients, both in medical men and medicines, more frequently than the administration of these remedies to debilitated, anæmic, and phthisical patients when they were quite unable to bear them. How often do we see a patient in the early stage of phthisis suffering from the miseries of dyspepsia added to those of his disease. And yet we find such a patient is being treated by cod-liver oil, or iron and quinine phosphates, which only add still further to his misery. Or, again, take the case of anæmia in which the fault lies in a weak and irritable gastric membrane. Nine out of ten of such patients become considerably worse when treated by ferruginous tonics. Or, again, take the case of a patient recovering from an attack of gastric catarrh: to select the exact moment when that membrane will be able to bear a tonic, and decide what tonic to give it, is one of our most difficult problems. In early phthisis, in anæmia, in the exhaustion of gastric catarrh, I rarely venture on any so-called tonic medicine, and prefer to give aids to digestion and sedative correctives until I am well assured the stomach will tolerate such remedies as iron, quinine, or cod-liver oil. I cannot help thinking these misapplications of the right remedy for the disease in unsuitable cases is the secret source of that sceptical attitude which many able men have assumed towards the beneficial action of medicines. In early life they expected too much, and blamed the medicine when really it was its application which was at fault, and so they have lost faith. I, for my part, have an undying, nay, an increasingly vital faith, in the virtue of medicines, and I hope to live to see the day when mankind at large will accord to rational scientific medication the place it undoubtedly deserves to hold in its esteem. Many hints which I could give as the result of thirty years careful study of the action of medicines crowd upon my mind, but I must not trespass further except to say that much depends upon the method of combining our remedies. I believe in combinations; without them we cannot put limitations to the action of our drugs, and we

annot guide them to the right spot. One medicine, so to speak, conditions another, and some are complemental to each other. Take digitalis as an example. Do we wish to act upon a weak heart in an anæmic subject we combine it with iron. Do we wish it to act upon the heart where all the organs are engorged from regurgitation in a plethoric subject, we give it combined with mercury and purgatives; or, do we wish to relieve pulmonary congestion arising from the same cause, we combine it with ether and ammonia; or, do we wish it to act on a sluggish kidney, we add some suitable diuretic. We thus, as it were, condition and conduct our remedy to do its work in the right direction. To do otherwise would lead to serious mistakes, and might shake our faith in the power of this mighty drug.

Newcastle-on-Tyne.

PRIMARY DENTITION IN ITS RELATION TO RICKETS.

By GEORGE CARPENTER, M.D. LOND., M.R.C.P.,
PHYSICIAN TO THE OUT-PATIENTS, EVELINA HOSPITAL FOR CHILDREN;
AND
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DENTAL SURGEON TO THE EVELINA HOSPITAL FOR SICK CHILDREN.

THERE is a widespread belief among medical men that the temporary teeth are materially affected in children who are rickety, and as the result of this disorder. In support of this contention extracts from some of the text-books dealing with this disease are given. Thus, one writer says: "Dentition is late and irregular. ..... The teeth themselves are imperfectly formed, their enamel is defective; in a year or two they turn black and break off or fall out."[1] Another writes: "Dentition is much delayed in rickets ..... the enamel of rachitic teeth is bad, rocky, or pitted in its disposition, the teeth are notched or have horizontal ridges, and break away down to the gum, where they appear as black jagged stumps. These conditions are not peculiar to rickets."[2] Another remarks: "Dentition is much delayed and the teeth when cut are deficient in dental enamel, so that they decay rapidly."[3] Another says: "The teeth are late in appearing; the teeth, moreover, are specially apt to decay and become loose."[4] Another observes: "The teeth appear very late, ... while they also rapidly decay or fall out, being deficient in enamel."[5] Others again state that modifications of dentition vary according to the period at which the active phase of rickets becomes manifest. If it be early, there are three ways in which the modifications may occur: 1. The teeth are late in their eruption. 2 The teeth are cut cross—that is, they appear in wrong order. 3. They soon become carious, and are often shed early.[6] In our practice the correctness of these views, in their entirety, has for some time been held in doubt, and with the object of bringing them to the test we have made more careful and extended observations on this subject. For this purpose we have examined the mouths of some 500 children with obvious rickets, and find, as we anticipated, the results are not confirmatory of the prevalent ideas on this subject. Briefly tabulated, these results are as follows: *A*. In the vast majority of patients the teeth are perfect in structure. There is no deficiency of enamel. The teeth do not become loose, and rapidly fall out. There is no special proneness to decay. *B* In those rare cases where the teeth have been found defective a history of inherited syphilis has been obtained. *C*. Dentition is undoubtedly delayed.

The result we have obtained under the heading *C* is then quite in accord with the writers we have quoted, as also with the prevalent opinion, whilst widely differing from them in other respects. Bland Sutton has made the suggestion that the delay is caused by "abnormal thickness of the follicles."[7] By the end of the seventeenth week of fœtal life the dentine is in process of calcification, and about the same time a deposit of enamel commences in the enamel organ. From this time forward the process is a continuous one, so that at birth parts of the crown of the teeth are fully formed, and the course is complete, as regards the crowns, between the third or fourth month after birth. It is still then a doubtful point whether the enamel has received its full impregnation of salts. Of late years it has been recognised by various observers that rickets may commence in utero, and in such instances as these some modifications in structure of the upper parts of the crowns of the teeth might be looked for, as is the case in congenital syphilis. Again, the presence of this disorder at birth, soon after, and up to the third or fourth month, should, on an assumption, bring about some defect of the lower portions of the crowns of the teeth (i.e., near the neck). Following Kassowitz, the earliest indications of rickets are either trifling beading of the rib costo-chondral junctions, or cranio-tabes, or a combination of these. He considers that at least 80 per cent. of children in Vienna under three years of age are rickety. On the question of some trifling beading of the ribs amongst the children of the London poor, we should be prepared to go much further than he does, and say that in a very large out-patient experience we have never yet failed to make out some very slight bossing in this situation in the youngest infants; and that, if this is to be taken as sufficient evidence of rickets, then the disease is nearly ever present in the out-patient room to some extent. A very large number of children must, therefore, be slightly rachitic during the period of the formation of the enamel of the lower half of the crowns of the teeth—i.e., the cervical part.

On the question of cranio-tabes, however, we hold somewhat different views, and consider that congenital syphilis is largely responsible for this condition of affairs.[8] Moreover, in comparison with the beads on the ribs, it is of infrequent occurrence. Given, then, that this beading of the ribs, to however slight an extent present, and seeing also how prevalent this condition is in the out-patient, it would have been expected, if rickets is such a potent factor as the text-books state, that some dental alteration in the shape of enamel scarring would have been detected in a considerable proportion of these cases, yet the contrary has been our experience. We have over and over again watched the teeth-cutting in obviously rickety children—children who have been attending as out-patients for weeks,—yet our observations have not been rewarded by the eruption of pitted and defective enamel: on the contrary, it has appeared to be quite perfect.

It must not be inferred that because a history of syphilis has been observed we consider such teeth syphilitic. Whilst not holding with Parrot that rickets is a syphilitic manifestation, yet in our experience, as doubtless in that of many others, the syphilitic cachexia is when present a very powerful agent in the production of rickets. In a large number of rickety children a syphilitic history can be obtained if inquired for,[9] and the observer is not infrequently startled by the appearance in some such cases of a slight syphilitic rash on the buttocks, anal condylomata, a specific ulcer in the mouth, eye trouble, or what not, in a child who, for all the signs that were present at the time of the first examination, would otherwise have passed as rickety merely. These signs showed that the disease was smouldering on, and that the syphilitic cachexia was underlying the rickety trouble. On this account, therefore, we cannot attach that importance to the heading *B* which we might otherwise have done. What we do say, however, is that it is not proven that rickets is responsible for all the dental troubles that have been laid to its charge; that the association of rickets with carious teeth as between cause and effect is merely an assumption; and that caries does not take place in any case in rickety children to anything like the extent the text-books would lead us to infer. What is wanted is some more extended and definite observations on this interesting point, and not statements which go the round of the various medical books in somewhat different dress, quite unchallenged and accepted as truisms.

Buckingham Palace Mansions.

[1] Fagge, third edition, vol. ii., p. 736-7.
[2] Goodhart, fourth edition, p. 646.
[3] Quain's Dictionary of Medicine, article Rickets (Eustace Smith), p. 1373.
[4] Bristowe, seventh edition, p. 930.
[5] Roberts, seventh edition, p. 285.
[6] Keating's Encyclopædia, Diseases of Children, article Rickets; Barlow and Berry; vol. ii., p. 226.
[7] Odontological Society's Transactions, 1889.
[8] Cranio-tabes in Young Children: a Clinical Inquiry into its Origin. Illustrated by 100 Cases. By George Carpenter, M.D. (St. Thomas's Hospital Reports, vol. xix., pp. 234 et seq.)
[9] St. Thomas's Hospital Reports, vol. xix, p. 341.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON THE RESULT OF EXCISION OF THE KNEE JOINT.

BY HENRY SMITH, F.R.C.S.

A FEW days since, whilst visiting an old pupil in the country, a young man in the garb of a postman was presented to my notice, and with some difficulty I recognised him as one on whom I had performed excision of the knee-joint at King's College Hospital in 1882. On examining the limb I found that it was perfectly straight, and thoroughly firm at the seat of incision. There was so little shortening that it was hardly perceptible, and the calf was well-developed. He informed me that he was following the occupation of a country postman, and sometimes would walk twenty miles in the day. He did not use any stick. It appears that he was fourteen years of age when the operation was performed.

This case is interesting and valuable as showing the utility of a limb after excision, and particularly so considering the nature of the man's occupation. It has occurred to me, I am happy to say, to meet with several cases where I have been able to test the utility of a limb years after excision of the knee, and I have been astonished with the results observed; but I have rarely met with a more satisfactory case than the one related, although amongst others I may refer to two instances occasionally seen by me in the neighbourhood of my country residence, and both of which were operated on some years since in King's College Hospital. In the one the patient is a fine tall woman, who is fulfilling the duties of lady's maid and walks without a halt; in the other the patient is a fly driver, who jumps up and down from his box with great facility and walks with scarcely any limping. Those who take an interest in this subject will agree with me that such cases as these, observed years after the operation, are especially valuable, and the more so when we bear in mind the opposition which was experienced by those of us who persisted in giving it a fair trial, although it was denounced as "mountebank surgery," and an eminent lecturer publicly stated that the result of removing the knee-joint would be merely the retention of a limb only "fit for a flail."

Wimpole street, W.

CASE OF PLACENTA PRÆVIA.

BY JAMES GILROY, M.B.

ON Feb. 17th, about 10.30 P.M., I was requested to visit Mrs. P——, residing some miles distant. The facts of the case, as given by the patient, were that about 8 P.M. that evening she had been suddenly seized with hæmorrhage, that she was pregnant, and expected her confinement early next April. The patient is a young married woman with a family of three children, and never had anything out of the way, to her knowledge, in previous confinements. On examination per vaginam I found the flow of blood had ceased, and that no uterine contractions were taking place. The os admitted the point of the finger easily enough, and the membranes appeared to be intact. As the patient said she thought the bleeding might have resulted from a mental shock she sustained that day, and had no pain whatever, and the bleeding apparently ceased, I left her, enjoining rest in bed, a light diet, and instructing her to send at once for assistance if the bleeding returned. She had no nurse to whom I could confide the operation of plugging in case of sudden emergency arising. I saw her again on the 19th, when she informed me there had been no return of the bleeding, and she still kept her bed. I heard no more of the case until Feb. 23rd, when I was hastily summoned. I found the patient bleeding copiously, with an undilated os, from which, the moment I attempted to dilate, blood issued in a perfect torrent. On sweeping the circumference of the arc of the circle denoted by the presenting part, evidently the head of the child, I came upon a boggy projecting part, which gave with sufficient clearness a guide as to the nature of the case. I proceeded to dilate the os with my fingers as speedily as I could, and succeeded in inserting my hand, and although only a matter of a few minutes, the bed was drenched with blood, which dilatation rendered alarming in character and amount. I seized a hand first in attempting version, but, feeling sure as to the thumb, got past that and brought down the foot. The rest was easy, the head following suit readily, and not, as in a previous somewhat similar case of placenta prævia, getting hitched at the promontory of the sacrum. The patient has done well since. The infant survived its birth only seven days. A curious point about the placenta I wish to record is that it was quadrilateral (perhaps lozenge-shaped would convey more correctly what I mean) in shape and the cord joined it at one corner.

Waterbeck, Dumfriesshire.

TWO CASES OF CONCUSSION OF THE SPINAL CORD.

BY F. LE GROS CLARK, F.R.S.,
CONSULTING SURGEON TO ST. THOMAS'S HOSPITAL.
Reported by Herbert A. Lawton, M.D.

AS a further contribution to the literature of concussion of the spinal cord, I think the following cases, which occurred in the practice of Mr. Le Gros Clark (who has kindly given permission for their publication), worth recording. I have copied them from my case-book notes made during the winter session 1871–72, when acting as dresser.

W. C——, aged twenty, labourer, residing in Lambeth, was admitted into Albert Ward on Dec. 13th, 1871, suffering from an injury to the spine. The patient states that while employed in unloading a barge he had to carry a basket weighing 1 cwt. along a plank 28 ft. in length from the barge to the wharf. At the end of the plank was a ladder, up which he had to go. He had got his foot on the first step, and was proceeding to ascend the second, when he slipped and fell across the plank, the edge of which struck against the small of his back. At the same time he let go the basket, which fell on his abdomen, thus jamming him between the plank and the basket. He was prevented from falling into the river. He was unconscious for a short time. On admission, about one hour after the accident, he was found to have sustained a fracture of the spinous process of the fourth lumbar vertebra, with depression. The lower extremities were cold and paralysed. As he could not pass his urine, a catheter was introduced into the bladder.—Dec. 14th: The patient slept but little last night. He complains of shooting pains in the back. There is complete loss of sensation from two and a half to three inches above the umbilicus, extending all down the lower extremities. He has no control over bladder or rectum. Catheter to be passed three times a day. On going round late at night this patient was found to be lying on his left side. His bladder had emptied itself, he being unconscious of it.—15th: This morning he passed his urine consciously. There is some return of sensation about flanks and umbilicus.—19th: He has recovered sensation over the whole abdomen and lower extremities, also control over the bladder. Eats well, sleeps well. He attempted to leave the hospital last night.—27th: Gets about now. Sensation and motion of lower extremities perfect. Discharged cured.

R. P——, aged forty-nine, clerk, admitted into Albert Ward on March 10th, 1872, at 12.15 A.M. About three hours prior to admission, while under the influence of alcohol, he slipped down a flight of stone doorsteps. On admission, the lower extremities were cold and sensation considerably diminished. He was very tender in the lumbar region.—March 11th: Has dozed during the night. Sensation has nearly returned. No retention of urine. Cough troublesome. The following mixture was ordered to be taken three times a day:—One drachm of compound tincture of camphor, two drachms of liquor ammoniæ acetatis, one drachm of mistura acaciæ, to an ounce of water. March 13th: Sensation has now quite returned. Sleeps fairly. Cough better.—21st: Doing well. To get up.—25th: Up and walking about.—28th: Discharged cured.

Poole, Dorset.

CASE OF BALANITIS IN A CHILD AGED THREE YEARS.

By J. W. MARTIN, M.D., F.R.C.P. EDIN.

ON Feb. 10th, 1891, I was called to a child aged three years and a quarter, suffering from some affection of the genitals. The child has a left inguinal hernia, for which it wears a truss. He had not been vaccinated on that account. His left arm had been fractured on two occasions. The anterior fontanelle is not completely closed. The mother stated he had slept with the truss on for two nights. On Tuesday, March 8th, the child was pained and "swelled." On Wednesday he had difficulty in passing urine. He was restless at night, complained of thirst, and had no appetite. His head and face were swollen. A quantity of thick milk-white matter came away from the penis, and he could make water; after this the symptoms began to lessen. On examining the penis I found the thick whitish discharge oozing out of the point of the penis, the glans was swollen, and the skin over it reddened. The prepuce was seen to be red and inflamed. On inquiry I ascertained that a relative, who suffers from a discharge owing to chronic cystitis, had been in the habit of nursing the child when he came in, and being dressed as children of such years generally are, the child's penis must have come in contact with some of the discharge, and the infection have been set up in this way. There was no other reason to account for it. Any dirty discharge will set up similar inflammation in a young subject, not to mention gonorrhœa. With local and general treatment the balanitis soon got better, the only complication being an attack of vomiting and purging one night.

The case seems to me worthy of being placed on record because of its rarity, and as a warning to those having any chronic discharge not to nurse or fondle infants.

Leith.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

LONDON HOSPITAL.

PERIOSTITIS OCCURRING AS A SEQUELA OF ENTERIC FEVER.

(Under the care of Dr. STEPHEN MACKENZIE.)

DR. MACKENZIE remarks, with regard to this case, that the occurrence of periostitis, as a sequel to enteric fever, is not common in his experience; but the disease is probably less infrequent than is generally believed. It is not alluded to in several standard text-books, but is mentioned by Bristowe, and by Cayley in Fowler's "Dictionary of Practical Medicine." Sir James Paget appears to have been the first to draw attention to the lesion, and cases have been recorded by Messrs. Hayward, Mackay, Jackson, H. W. King, Afflick, Gostling, and others, and M. Routier has written on the subject. Periostitis after enteric fever occurs most frequently in young persons. The most common situation is on the bones of the extremities, especially the tibia, where it sometimes occurs symmetrically; but it may occur on the ribs and sternum. It usually occurs during convalescence, when, as Sir James Paget says, the patient is "well of his fever"; but, as Dr. Afflick has shown, it may take place during the pyrexial period. Contrary to what happened in the present instance, it usually suppurates, and often causes necrosis of the subjacent bone, and in rare instances occurs in a chronic form. With regard to its causation, M. Routier attributes it to injury in all cases, though, as pointed out by some observers, it would probably, if this were the case, be present in other fevers followed by exhaustion and devitalisation of the tissues. The more likely explanation is that suggested by Sir James Paget,[1] that it is due to some morbid material remaining in the blood and affecting only certain tissues. To quote his words, "After all the signs of typhoid fever have passed away, when the convalescence is established, and all the waste and damage of the disease are being repaired—while thus, in respect of general nutrition, the health might be deemed above its average, we may find an acute inflammation of one portion of the periosteum of one bone. It is surely an evidence that that one portion was the only portion of the body in and with which the something in the blood could generate disease. It seems the more evident in the fact that sometimes the periostitis has appeared symmetrically on both the tibiæ. The two portions of periosteum symmetrically placed were identical in composition, as symmetrical pieces of the body often are; therefore both were similarly disturbed—no other part being exactly like them no other was disturbed. In all the body nothing was susceptible of the disease except these two pieces." Syphilis, in which *par excellence* periostitis is usually encountered, has been called by Mr. Hutchinson, "an exanthem long drawn out," and it is interesting that in the most protracted of the specific fevers of this country—enteric fever—periostitis is occasionally met with. Moreover, whilst in syphilis periostitis is usually a tertiary phenomenon, yet it occasionally occurs in the secondary and febrile period. The parallelism is therefore close. For the notes of this case we are indebted to Dr. J. H. Sequeira.

P. L——, aged sixteen, dressmaker, was admitted to the London Hospital on Sept. 10th, 1891. She was then complaining of pains in the back, stomach, and head. The temperature on admission was 102·4°. There was no history of any previous illness. One brother, eleven years old, suffers from chorea. The rest of the family are healthy. The case proved to be a characteristic example of enteric fever. Successive crops of spots appeared, and the stools were yellow and fluid. The evening temperatures reached 104° on several occasions. On Sept. 23rd the temperature began to show large morning remissions, but was not persistently normal until after Oct. 16th. On Oct. 26th a swelling was noticed on the right ulna, near the wrist. The swelling was tender, hot, and red, and was connected with the bone. Evaporating lead lotions were applied, and the tenderness and heat had disappeared by Oct. 31st, but some thickening of the bone persisted for a week longer.

BRISTOL GENERAL HOSPITAL.

MULTIPLE TUBERCULAR CEREBRAL TUMOURS; CONVULSIONS; TREPHINING OVER MOTOR AREA.

(Under the care of Mr. NELSON C. DOBSON.)

THIS case illustrates a condition of some rarity, the presence of a tubercular growth in the motor area of the brain, which was sufficient to cause symptoms of so much importance that it was localised, and an attempt made to remove it. There were several other tubercular deposits within the skull, but they did not give rise to symptoms indicating their presence. Dr. Hale White, in writing of the cases of tubercular character amongst the series of cerebral tumours collected by him, says that not more than three of the forty-five were likely to be benefited by operation, and they were accompanied by tubercular disease of other organs. There are now several recorded cases in which, although the tumour was not found at the operation, or its removal was incomplete, great relief was experienced as the result of the diminished pressure. We have published a case which was under the care of Mr. F. A. Heath, which shows this in a marked degree.[2] There is no doubt the growth found at the edge of the trephine opening was the discharging lesion which caused the unilateral convulsions. Even if the trephine opening had exposed it, and it had been removed, the larger growth in the opposite corpus striatum might have proved fatal. As it was, headache never recurred after the relief of the intracranial pressure by trephining; and had the wound not become septic the patient might by this relief have been materially

[1] THE LANCET, vol. ii. 1887, p. 1001; Neale's "Digest," third edition. By a printer's error it is given as vol. ii. 1889, and Dr. Mackenzie wishes to thank Dr. Neale for the correction.

[2] THE LANCET, vol. i. 1888.

benefited, and perhaps the tubercular growths might have become quiescent. The fatal meningitis seems to have set in after the escape of the cerebro-spinal fluid on the 5th of April. For the notes of the case we are indebted to Mr. Charles A. Morton, registrar.

A. S——, aged eighteen, was admitted into the hospital on Feb. 1st, 1892, with the following history:—For five years she had been subject to ozæna. Ten weeks before admission she began to suffer from pain across the forehead, extending over the back of the head and down the neck. Shortly after the headache began she commenced to vomit frequently and quite irrespective of food. After a few weeks the headache and vomiting became less marked, only occurring every other day. On the alternate days she seemed quite well. Six weeks before admission she began to suffer from weekly attacks of twitching in the left upper limb, beginning in the thumb and first finger. This has always been preceded by a feeling as if the parts were too large, beginning in the thumb only and then spreading up the arm to the shoulder. During the last two attacks it has, however, begun in the fingers also. During the last fortnight, when this aura has come on in connexion with the convulsive movements of the arm, there has been a sensation in the left side of the tongue and inside of the cheek and gums on the same side, as if she had had "too hot tea in her mouth," and yet she said it was not a numb feeling, and she could not describe it other than as a "lumpy feeling." The aura in the tongue always followed the aura in the arm. There was never any convulsive movement of the face noticed. The convulsive movements were limited to the left arm until Feb. 4th. They were never followed by any paresis in the arm.

On Feb. 4th (after admission) Mr. Morton was standing by the bedside, after an ophthalmoscopic examination, when she called his attention to her left arm, which she said felt numb. Clonic spasm was then present in the arm, then the limb became rigid and drawn up, quickly followed by general rigidity, and then clonic spasm lasting about a minute, accompanied by coma and followed by much lividity and pallor and feebleness of pulse. This condition of cardiac and respiratory failure quickly passed off, and consciousness soon returned, so that she knew when spoken to, and said "Yes," but a quarter of an hour after she did not recognise her relatives. Before an hour had elapsed, however, she knew them again. This was the only attack of general convulsions she had during the course of her illness.

Three weeks after her illness began she commenced to see double. This lasted four weeks, and was constant. During this time she is said to have squinted with the left eye. Her sight began to fail six weeks before admission, and at times even perception of light failed. There had been no otorrhœa. There was a distinct history of one rigor whilst she was sitting by the fire at the beginning of her illness. She had been up and about for some time before admission.

On admission it was noted that she looked well, and was free from headache and vomiting. There was, however, intense double optic neuritis. The discs were so swollen that the surface was seen with a +5, and there was great hurrying and bending of the vessels, and numerous striated nerve-fibre hæmorrhages around. In the right eye, upwards and inwards, not far from the disc, was a smooth retinal elevation, the vessels on which were seen with a +6. In the macula were numerous glistening white spots, and below large patches of retinal effusion and hæmorrhage. Vision: right eye, $\frac{1}{5}$ and J. 4; left, $\frac{1}{5}$, J. 10. There was no loss of power in the left hand or left side of face, and no anæsthesia, analgesia, or thermanæsthesia; no deviation of tongue and no ocular paralysis; pulse 112, small but regular; respiration 24–28. She could walk about very well and her memory was very good. There was no tenderness over any part of the skull or frontal sinuses. The nose was examined by Dr. Baron, who reported that both sides were covered with thick scabs which prevented further examination until removal. Her lungs and urine were normal. It was considered almost certain that there was a gross lesion involving the arm and face centre, and the history of ozæna, with a rigor at the beginning of her illness, pointed to cerebral abscess, probably secondary to frontal sinus mischief, and therefore in the frontal lobe, which had after some weeks extended backwards, and had begun to irritate the arm and face centres. The history of ozæna and rigor seemed to make this more probably the explanation of the symptoms than cerebral tumour, which, however, was recognised as a very possible cause. Her temperature was normal, but this of course was not more in favour of one than the other. It was decided at a consultation, as the girl seemed so well, not to explore at that time.

On Feb. 9th, at noon, she had a sensation as if the left thumb were too large, and twitching of the thumb, lasting a few minutes. This time the spasm was simply in the thumb, and did not consist in approximation of the thumb and forefinger, and it did not spread up the arm; very shortly after this attack she had the curious feeling in the left side of the tongue and inside of the cheek, lasting ten minutes. Directly after this Mr. Morton saw her, and noticed the mouth slightly drawn to the right, and marked powerlessness of the left angle. She could completely close both eyes. There was no ocular deviation or paresis, no anæsthesia of thumb, hand, or left side of face, and her mental condition seemed unimpaired. During the month from Feb. 9th to March 8th she had three attacks of headache only, but they were severe, and she never vomited. They were on the 15th, 18th, and 29th of February. She seemed much inclined to sleep, but was always quite sensible when awake, until March 2nd, when she became rather noisy and excited, and had to be removed to a private ward. But on the following day she became quiet and rational again, and on March 7th she returned to the general ward. At this time she was rather drowsy, and headache was troublesome. On Feb. 16th the eyes were again examined ophthalmoscopically and very numerous flame-shaped hæmorrhages were seen around the disc, extending far into the periphery in the left eye. These had not been seen on the previous examination, and this hæmorrhagic condition was on this second examination much more marked in the left than in the right eye, where the hæmorrhages were not numerous, and were confined to the neighbourhood of the disc. The glistening spots in the right and the swelling of the discs remained the same. The macula had also become surrounded by a diffuse whiteness. By the 29th of February vision was reduced to rather dull perception of light in both eyes. With the exception of one evening rise to 100°, the temperature up to March 10th was normal. Only once after syringing had there been any purulent discharge from the nose.

In the evening of March 9th headache returned, and between 3 A.M. and 6 A.M. she was very excited, sitting up in bed and singing. At 6 A.M. she became unconscious, and remained so until 8 A.M. After return of consciousness she felt sick but did not vomit, and her memory was impaired. It was now decided to trephine over her arm and face centre and explore the brain for abscess and tumour, and it was thought that even if one was not discovered, the intracranial pressure might be relieved. The head having been shaved and thoroughly carbolised, the fissure of Rolando was marked out according to Reid's lines, and a point in the middle of the fissure marked on the bone with a bradawl. A flap was turned down and the bradawl puncture sought for, but not found. However, Mr. Dobson was sure of its exact position, and the skull was trephined there. On removal of the crown of bone the dura mater bulged much into the wound, and on removal of this the brain bulged into the opening still more, so as to protrude slightly beyond the level of the outer surface of the skull; it appeared normal. The brain was explored in all directions with an exploring syringe with needle three inches long. The operation was thoroughly antiseptic. A drainage-tube was placed under the flap, projecting at the upper angles. She took the chloroform for the half-hour very well.

The patient lived a month after the operation. During this time she had no headache and remained perfectly rational and quiet until a few days before her death. Unfortunately the wound did not remain aseptic, and after much œdematous swelling of the scalp and face a hernia cerebri formed, and after a time septic meningitis followed. Hemiplegia began to develop the day after the trephining on the opposite side, beginning in the hand and the left angle of the mouth, and then involving the whole of the upper and lower limbs, and later on becoming associated with complete analgesia of the left upper and lower limbs and side of body, and complete anæsthesia in lower limbs, and great impairment of sensibility in the upper. The fundus hæmorrhages nearly cleared up, and there was very slight diminution in the neuritis in the right towards the end. On one occasion she discharged a small quantity of thick

greenish pus from the nose. On April 5th she discharged large quantities of watery fluid from the cranial opening. The hernia cerebri was by this time very large, and had pushed open the flap of skin. From the time of this discharge of cerebro-spinal fluid her mental condition altered, and she became less conscious of things about her. The discharge was only noticed for twelve hours. No doubt the lateral ventricle had been opened by the rapidly increasing cerebral softening and hernia cerebri. After this she quickly became comatose, and a fine tremor set in in the right (the non-paralysed) side, and continued in the arm with the addition of more convulsive movements, but ceased in the leg before death, which took place on the 10th. During the last day she vomited everything. The first serious rise of temperature after the operation was on the third day, to 103°; after this it continued to range between 101° in the morning and 104° at night daily for a fortnight; it then dropped to 100° in the morning, but still rose to 104° at night for another week; then for some days became normal in the morning, but 105° at night; and then on and after the fifth day, when she discharged the cerebro-spinal fluid, the temperature ceased to fall in the morning, and was usually between 105° and 106°; and on the eighth and ninth reached 107°, but quickly fell again lower than it had averaged before during these days. During the last twelve hours it three times reached 106°. On the ninth the pulse was 160, respiration 80; breathing Cheyne-Stokes the night before.

The post-mortem examination of the brain.—The cerebral cortex above the hernia (which was the size of a small orange) was seen to fall in, and the frontal lobe to be much shrunken. On cutting into the brain it was apparent that a great part of the middle third of the hemisphere had disappeared into the hernia, and the rest was represented by a mass of red, soft, almost liquid tissue, and through this the lateral ventricle was opened. This softened brain tissue was adherent to the dura mater all round the trephine opening; and after the brain had been cut up a nodule of firm tubercle the size of a half-crown was discovered immediately under the dura mater in this soft brain matter, where they were adherent, just at the edge of the trephine opening so that the edge of the growth met the edge of the opening), either in front of or behind it, but it was not possible to say which. There were two other small nodules of tubercular growth elsewhere in this hemisphere, away from the motor area. The lateral ventricles were quite empty. In the caudate nucleus of the left side (the opposite side to the cortex growth just described), slightly projecting into the ventricle, and exposed on its inner aspect by a median section through the brain, was a nodulated firm yellow tubercular growth, looking, as it projected into the ventricle, about the size of a walnut, but it only extended a very short distance into the corpus striatum. There was also a small quite superficial nodule the size of a shilling just under the surface in the left superior parietal lobule, one inch from the upper and inner margin of the hemisphere, and just behind the ascending parietal convolution. There was also one the same size in the posterior part of the left occipital lobe. All these growths were typically tubercular. There was purulent meningitis of the right side of the vertex and the base. The patch of raised retina in the right eye proved to be a tubercular growth seven millimetres in diameter. The upper part of both lungs contained numerous miliary tubercles. The bronchial glands were not caseous. All the other organs were healthy, and there were no miliary tubercles seen in them.

METROPOLITAN PUBLIC GARDENS ASSOCIATION.—It was announced at the last monthly meeting of this Association that the old burial grounds, Hackney-road, and De Beauvoir-square, Kingsland-road, would shortly be opened for the public use; that the Association was adapting for recreation purposes the churchyards at Spitalfields and St. Ann's, Soho; and that satisfactory arrangements had been made with Lord Calthorpe with regard to the open space in front of Duncan-terrace, Islington. It was decided to take steps for the acquisition of St. Thomas's-square, Hackney, which the local authorities were willing to maintain, and also to take charge during the summer months of the churchyards of St. Katherine Coleman and St. Dunstan's-in-the-East.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Adjourned Debate on Renal Dropsy.

AN ordinary meeting of this Society took place on May 11th, the President, Sir Andrew Clark, in the chair.

Dr. DOUGLAS POWELL, in reopening the discussion on Dr. Dickinson's paper, said he thought it would clear the ground if speakers declared at once whether or not they accepted the statement put forward by Dr. Pye-Smith, in which, so far as he personally was concerned, he heartily concurred—namely, that the late dropsy of renal disease had no essential connexion with the kidney mischief, but was the direct consequence of heart failure. In interstitial nephritis the diseased kidney underwent gradual destruction, and by and by uræmic phenomena made their appearance. But this variety of kidney disease was marked by a singular absence of dropsy, though should the patient survive the uræmic accidents, and should the case go on to the bitter end, then later on in the disease dropsy came on, but only as an indication of and associated with heart failure. He pointed out that this form of kidney disease was characterised throughout by the so-called high-tension pulse from the very earliest stage. This condition of the pulse persisted until the later stages of the disease, and it was only quite at the end, that passive œdema supervened. Then, still later, œdema of the lungs, anginal complications, and gradually increasing dropsy closed the scene. In tubular nephritis the dropsical phenomena were among the early symptoms, diminishing as the case went on, just as the signs of arterial tension made their appearance, and as the heart underwent hypertrophy. He had indeed noted cases of acute nephritis not associated with dropsy, but there had invariably been either vomiting or diarrhœa, or other flux, compensating for the absence of renal secretion, and thus the dropsy had been warded off. He strongly inclined to the belief that the high-tension pulse of kidney disease had really nothing to do with the production of the dropsy. On the contrary, he had remarked increase of arterial tension was often associated with diminished dropsy. On the whole, he did not consider that the arterial tension met with in kidney disease was greater than that met with in acute diseases of all kinds associated with febrile symptoms—as, for instance, acute gout, peritonitis, &c., though in this case the arterioles were relaxed. He regarded the cardio-vascular changes as compensatory, as an attempt to carry on the renal secretion under difficulties, as called forth by the requirements of the kidney function in the direction of increased pressure. Then, again, the high-tension pulse was by no means necessarily associated with renal disease, being met with in other conditions, as in fevers, when it was not accompanied by dropsy. What, then, was the cause of renal dropsy? The author had mentioned two possible or probable causes: one of transudation through the walls of the vessels under pressure or increased osmosis, the other a kind of secretory power possessed by the capillaries, which he confessed he did not quite understand. Dr. Pye-Smith had suggested a fourth cause, that the dropsy of acute nephritis was of the nature of an inflammatory exudation. He could not admit pressure as a direct cause of dropsy in renal disease, seeing that during the period of highest tension dropsy was not present. In heart cases the patient was often greatly distressed, yet there was no dropsy for some reason. When it did develop great relief followed. He thought that possibly osmosis did to some extent answer the question. Most of them would agree that the dropsy of renal disease was osmotic, and intended to compensate for deficient kidney secretion, increasing in proportion to the renal insufficiency, and decreasing as it was re-established. There was nothing very special about this phenomenon, for it was constantly going on in health. He did not see how Dr. Pye Smith could substantiate his view as to the inflammatory character of the œdema in acute nephritis. There was no clinical evidence to support it, and the characters of the fluid were quite distinct. He mentioned the case of a young woman of twenty-five who had had scarlet fever in early life, with dropsy then. Two years before admission she was undoubtedly albuminuric, with hæmor-

rhages, cardiac hypertrophy, &c. Her pulse exhibited the condition of high arterial tension to perfection, and in some tracings even when the radial artery was completely arrested the pulse tracing was still perceptible below the level of obstruction.

Dr. BROADBENT said he was prepared to go a long way with the author in the explanations which he had suggested as to the causation of renal dropsy. The observation of renal and cardiac dropsy showed so many points of resemblance as to suggest that there must be a similarity of causation. If, therefore, they admitted the hydraulic causation of cardiac dropsy, some hydraulic cause must be sought for in dropsy of renal origin. The fact that renal dropsy came chiefly in the lower extremities tended to support the view that it must resemble cardiac dropsy. A patient lying in bed with renal disease did not get dropsy, but it appeared so soon as he got up. The conclusions to be drawn from these phenomena were so obvious as to gainsay the suggestion that renal dropsy was ever or in any degree inflammatory. He believed that the obstruction was situated at first in the capillary system and not primarily in the arterioles. He well remembered this idea as having been suggested by the celebrated Dr. Payne when Dr. Johnson brought forward his hypothesis. It by no means told against his great discovery that the site of the obstruction was shifted, and was made primarily arterial and secondarily capillary. He was ready to admit that the additional obstruction which gave rise to the dropsy in renal disease was resident in the capillaries, and that something in the blood was the cause of the increased resistance, and thus caused the exudation. The pathological phenomena of tubular nephritis were exceedingly interesting. In the heart the phenomena were those of acute dilatation. There was from the first mechanical evidence of arterial tension when the pulse was not exactly of the same kind to give that impression, and with the idea in one's mind of capillary obstruction, the character of the pulse in the first instance was suggestive of obstruction beyond the arterioles and not due to arterial contraction. Then the immediate prognosis of acute renal dropsy could always be determined by the development of the ordinary signs of high arterial tension: the full vessel, the modification of the heart sound, the prolonging of the first sound, the extended second sound. If in the course of a week or two these indications did not develop, the prognosis of acute renal dropsy became serious, and many times one had seen these cases linger on indefinitely, and one had been able to anticipate this course by failure of this high arterial tension. With regard to the dropsy of old-standing chronic Bright's disease, undoubtedly that was a dropsy due to cardiac failure, and not to any increase of blood pressure or to the renal changes. He had frequently witnessed the supervention of dropsy and albuminuria late in the history o fcontracted granular kidney after an acute attack of acute tubular nephritis, when the whole affair had been the giving way of the left ventricle. In Dr. Dickinson's explanation he thought they had the most probable explanation of renal dropsy yet formulated. Without accepting it definitely, he was greatly disposed to regard it as in all probability the correct explanation.

Dr. SANSOM said the question before them was whether the phenomena of cardiac and renal dropsy could be explained by dynamic causes or not. The discussion had gone far to answer the question in the affirmative. From what he had seen and observed he felt compelled to differ from that conclusion, and he thought they must look elsewhere for the chief, the determining factor. The question of arterial tension was much more complicated than one might have been tempted to think from the observations that had been made. What did they mean, after all, by a high arterial tension? In the first place, he thought that these factors might be dissociated, and were commonly dissociated; that is to say, the cardiac and the vascular phenomena. There might be increased cardiac activity without arterial contraction, and *vice versâ*. He would assume the arterioles to be relaxed while the cardiac portion of the circulation was contracted. That occurred in the early stages of fevers, when, with a strongly contracting heart, there were relaxed arterioles and a dicrotous pulse. It would not be correct in such cases to say there was low arterial tension, though, judging solely from the pulse, one might be tempted to say so. It was a pulse of high tension, for the blood pressure at a given moment was greatly above the normal. Conversely they might have very contracted arterioles with feeble cardiac action, giving a small pulse presenting the characters of high tension. He must therefore plead for a reconstruction of the terminology. High arterial tension might exist not only in conditions of health, but even in aortic regurgitation. The difference was that in chronic renal disease the high tension was prolonged. It was sufficient for his purpose to say that the cardiac phenomena and the vascular phenomena might not go hand in hand. That fact, he thought, had a considerable bearing on the question of the dynamic causation of dropsy, whether renal or cardiac. Moreover, the tension, even in chronic renal disease, was by no means a constant quantity. Most of them would agree that there were occasions when the tension underwent great alterations, as, for instance, in the course of an inter-current attack of some febrile disorder, without any consequent alteration in the amount of the dropsy. On the contrary, the dropsy would often increase during the period of low tension, and decrease when the high tension was restored. He did not think, therefore, that it was possible to establish any constant ratio between the cardio-vascular phenomena, so far as the production of dropsy was concerned. He could not agree with the view suggested by Dr. Pye-Smith in this respect. Dr. Pye-Smith had stated that the arterioles could not be concerned in affecting the onward current of the circulation, for they were always repressive and never onward forces in the circulation. That, however, was after all a matter of degree. With contracted arterioles and a weak heart they got a small supply of blood to the capillaries. He had seen evidences of this in curarised frogs going on to extreme contraction of the arterioles and obliteration of the capillaries. The action was repressive or exciting, according to the relationship between the heart and the vessels. Whether the obstruction was in the arterioles or in the capillaries, he could not conceive how the dropsy could be attributed to the escape of the fluid elements from the capillaries or to any hypothetical relation between the capillaries and the surrounding tissues. When they saw such immediate results as followed the inhalation of nitrite of amyl or other agents that relaxed the arterial walls, it showed that the major and by far the greater source of the cause of obstruction must be in the arterioles, and not near their junction with the capillaries. That seemed to him to be incontrovertible. Having said this much in the direction of destructive criticism, he would turn to constructive observations. What might the cause of the dropsy be if not dynamic? He was surprised that nothing had been said in the discussion of the interesting and valuable researches of the late Dr. Wooldridge, who had shown what remarkable effects followed the injection of toxines into the blood. Dr. Wooldridge had demonstrated that dropsy would not occur in dynamic conditions of the blood very carefully brought about, unless some small amount of lymph products were injected into the blood. So soon as that was done the dropsy followed. He urged that it was not difficult in renal disease to assume that reabsorption was likely to take place in view of an impeded excretion, and the effect was transudation, as observed by actual experiment. Again, in cardiac disease it was not a matter of conjecture. He had himself seen plugging of the subclavian vein close to the duct followed by extreme general dropsy and gradual recovery. It was borne out occasionally by clinical experience, and still more so the probability that, not for one moment doubting that dynamic causes had their *rôles*, yet that auto-intoxication certainly was not without importance in the production of both renal and cardiac dropsy.

Dr. HAIG pointed out that in everybody and every day there were physiological causes at work which would have for effect to determine the presence in the blood or tissues of an excess of water which might be unable to pass out. That condition was the contraction of the arterioles, and in a paper which he had recently read before the Society he had shown that the most frequent cause of this contraction was the presence of uric acid. He pointed out that in renal incompetency the surplus water might be got rid of by cutaneous means or by the lungs, but when the arterioles were contracted, the water could not get out in either direction. Dilate the arterioles and it passed freely in every direction. He showed a diagram tabulating the results obtained by the use of drugs which contracted the arterioles, and their effect was the same as that of uric acid. As the blood pressure rose the excretion of urine augmented, but when the blood pressure reached its highest point the secre-

tion of urine diminished and reached its lowest point. Later on, as the blood pressure fell to or below normal, the excretion of urine rose again. Those were the effects observed under erythrophleum, and they were identical with those in uric acid. This point was very well seen in the uric acid headache. During an attack the excretion of urine fell as low as 30cc. Then if they cleared the uric acid away the secretion rapidly rose to 200 or 300cc. in the same period of time. The author mentioned that dropsy did not follow obstructive suppression of urine, but in that condition the escape of the water was only checked in one direction, consequently no accumulation took place in the blood. Acute nephritis was a totally different condition. There was always contraction of the arterioles and excess of water in the blood, the escape of which from the body was plugged in every direction. The dropsy in this case resulted from this accumulation. In the uric acid headache the eyelids had been noticed to become puffy, amounting to almost a beginning of dropsy. There were times when an excess of uric acid leading to contraction of the arterioles and an accumulation of water in the blood took place in everyone. It had been objected to his theory of an alkaline wave that it resulted from the breakfast; but as a matter of fact it occurred before that meal, and was accompanied by scanty urine, which secretion was restored by a small dose of opium, which restored the circulation.

Dr. LAZARUS BARLOW observed that physiological experiments could hardly be adduced in support of pathological facts, and the question of asphyxia, as propounded by Dr. Johnson, hardly seemed to him to support the theory associated with his name. The increase of blood pressure in asphyxia was not to cut off venous blood from the lungs, but was the expression of the need of increased respiration from the medulla. He thought the more or less rival theories of the author and Dr. Johnson were perhaps not wholly irreconcilable. There was one fact well known in pathology—viz., the series of phenomena in inflammation. Though he wished firmly to disclaim that the dropsy of renal disease had anything to do with inflammation, yet it was only reasonable to suppose that something of the same kind might hold good in the two cases. There were deleterious substances circulating in the blood, and these might have some effect on the capillaries through which they passed. It must, however, be brought about in a reflex manner, and the afferent termination of the reflex apparatus was situated in the tissues to which the blood was supplied. Secondly, the deleterious substances in the blood might set up a constrictive action in the arterioles, so that the opposite views of the hypertrophied arterioles and the action of the capillaries might in this way somewhat coincide. In the first place the deleterious material came into contact with the capillary walls, partly producing dropsy by damage to the walls, and also by a certain amount of vital secreting power, which could not in this minor degree be annulled. Lastly, by the slowing of the flow through the capillaries due to arterial contraction: the flow of lymph increased with the increase of blood pressure; yet it was quite possible that with an increase of positive pressure inside the capillary bloodvessels and a lengthened stay in the capillaries transudation might be increased. The contraction of the arterioles might pass off as in puerperal eclampsia, the tension fell, and the patient recovered. This was shown very clearly in a case at St. George's Hospital, in which the pressure and the pulse returned to normal after a stay in the hospital. After long-continued pressure the cardio-vascular changes came to pass, and the pressure was raised in the renal artery, followed by an increase in the flow of urine; hence a getting-rid of deleterious products, and some possibility of repair of the damaged capillary walls. Lastly, the cardiac failure set in. It was not, however, merely a question of cardiac failure. It was rather a combination of this with the other causes. The fact that erysipelas was common in the later stage of renal dropsy, and rare in cardiac dropsy, showed that there was some essential difference in the nature of the two conditions.

Dr. DICKINSON, in reply, said that Dr. Johnson's remarks were largely based on a misconception of the views contained in his paper. As a matter of fact, there was so much agreement of views that he had hoped to receive his support on this occasion. His attention had been excited by observing the enormous effect of differences of pressure on two sides of an animal membrane largely in excess of any effect that could be produced by osmosis. Many of the remarks attributed to him by Dr. Johnson in respect of the *rôle* of the capillaries had not been uttered by him. Whether the arterial thickening came as Dr. Johnson had described remained to be discussed. Let them assume that he was arguing at a time anterior to the thickening of the arterioles, before these had had time to take place, and before this had shut off the blood from the capillaries. In any case, he made no pretension to finality in this respect, and he remained prepared to modify his views as new facts were discovered. He adhered to his view that the capillaries were the primary seat of the obstruction, whatever might subsequently take place in the arterioles. There was more in the cardio-vascular changes of renal disease than the "stop-cock" theory would account for. He added that the arterioles were thickened, not only by muscular hypertrophy, but by fibroid thickening. He was aware that Dr. Johnson maintained that the appearance of fibroid thickening was a delusive appearance due to the action of the reagents; but to that statement he demurred, for he had made a large number of experiments with various reagents, and he had convinced himself that the fibroid thickening was as real as the muscular. He thought, too, that the continued high tension throughout the arterial system would account for both kinds of thickening. Last December Dr. Johnson had written to THE LANCET in reference to his (Dr. Dickinson's) Harveian lecture, attributing renal dropsy entirely to osmosis, but now he seemed to have modified that view in favour of some active vital secreting power on the part of the capillaries. In spite of what had fallen from Dr. Powell, he inclined to the view that osmosis as a cause of dropsy was dead, irrevocably and thoroughly dead. He showed photographs of the healthy heart and of the heart in these cases, and asked them to look on this picture and then on that. He thought that Dr. Pye-Smith's suggestion as to the inflammatory nature of the œdema of acute nephritis was disproved by the analysis of the fluids in the two cases. Inflammatory fluids usually coagulated spontaneously, which dropsical fluids did not; moreover, they contained 6 per cent. of albumen, whereas the other only contained about 2 per cent. These differences were sufficient to prove that the two processes were not the same. As to the late renal dropsy being cardiac, and not renal, it was said that the tension often continued high after the dropsy had disappeared; but he did not think this was of common occurrence. He thought the rule was for the dropsy to disappear and the patient to get better as the blood pressure fell. What was more remarkable was that the dropsy went on in spite of a further increase of the tension. Of this he suggested three explanations: One was an increase in the excretion of urine; an increase in the suction action of the hypertrophied left ventricle; and, lastly, the contraction of the arterioles keeping the blood out of the tissues. He had only mentioned chlorotic anæmia, so to speak, accidentally. He had usually found high tension in that association. He never intended to convey that transudation under pressure was the only explanation. Dr. Sansom had very properly insisted upon the effects of prolonged high pressure; and of the effect of uric acid in bringing about contraction of the arterioles there could be no doubt, though he was not prepared to attach as much importance to that factor as Dr. Haig did. An excess of uric acid was unquestionably present in many of these cases, and in one instance he had found a lump of uric acid in the brain of a patient. In conclusion, he thanked the Society for the indulgence with which they had listened to his paper, and for the valuable criticisms and observations which they had made.

OPHTHALMOLOGICAL SOCIETY OF LONDON.

AN ordinary meeting of this Society was held on Thursday, May 5th, Henry Power, F.R.C.S., President, in the chair.

Mr. E. C. KINGDON (Nottingham) read a paper on a Rare Fatal Disease of Infancy, with Symmetrical Changes at the Maculæ Luteæ. The patient, aged eight months, was born at the full term, and appeared healthy until three months old; then gradually increasing weakness of the muscles of the trunk and limbs set in, so that when seen he was unable to sit up or turn over in bed. The muscles felt flabby, but the body was well nourished. The child was

apathetic, rarely cried, and the expression of the face suggested mental enfeeblement. There was no sign of disease in the thorax or abdomen; no history of any previous illness, nor of rickets or syphilis. The father and mother were not related, and were healthy people with good family histories. Their first child had died when two years of age with similar symptoms. At the yellow-spot region in each eye, covering a space nearly twice the size of the optic papilla, there was seen a whitish-grey patch, somewhat oval in shape (the axis being horizontal), with softened edges; a few retinal vessels coursed over its periphery. In the centre of the patch the fovea centralis appeared as a dark cherry-red spot. In addition there was commencing optic atrophy. The changes in the two eyes were identical. The child remained under constant observation for four months, when it died somewhat suddenly. During that time its general condition had not altered. The appearances at the maculæ luteæ persisted unchanged, but the optic atrophy had increased. Microscopic examination of the brain after death revealed marked changes in the pyramidal cells of the cortex; they were altered in shape, being mostly round or oval. The cell protoplasm was vacuolated, and formed an irregular shrunken mass around the nucleus. Sections of the spinal cord revealed "descending degeneration."

Mr. WARREN TAY communicated another case of Symmetrical Changes in the Yellow Spot Region in an Infant, closely resembling those of embolism of the central retinal artery. There were symmetrical changes in the yellow spots, exactly resembling those figured and referred to, and closely simulating those due to embolism of the retinal artery; there was, however, no obvious change in the disc. There were six children in the family, two of whom had been delicate, one of them, aged six, dying of diphtheria. The others appeared well. The parents were first cousins.

Mr. CHARLES HIGGENS made a communication on a case of Spontaneous Cure of Cataract. The patient, aged fifty-seven, consulted the author in February as to the condition of his eye. He had seen the late Mr. G. Critchett ten years before, and was told by him that he had a ripe cataract in that eye, and, as his left eye was unaffected, Mr. Critchett advised him to have nothing done. Examination of the eye detected no sign of wound on the cornea, and showed the pupil to be circular and freely movable, a good deal of opaque membrane and possibly some lens matter occupying its area; the optic disc was visible, and vision was $\frac{6}{24}$ with a + 3½ inch lens, and Jaeger 10 at 6 inches with a + 2½ inch lens, the whole, or nearly the whole, of the lens having undergone absorption.—Mr. LANG mentioned the case of a man under his care at Moorfields Hospital, in whom a senile cataract had almost disappeared during the course of two years. The nucleus of the lens had sunk to the lower part of the capsule, and had left a central, nearly clear space. With correcting glasses the man had good vision.

Mr. HOLMES SPICER read a paper on Vasculitis in Hereditary Syphilis and the condition of the Retinal Vessels in the Retinitis of Congenital Syphilis. The ophthalmoscopic appearances showed faint white lines on each side of the vessels, beginning at or near the optic disc, and gradually increasing in thickness towards the periphery; arteries and veins were both affected, but in the slighter cases the veins showed it most. In very acute cases the vessels were entirely obliterated and converted into white threads. This change was combined with a diffuse retinitis, and with a superficial disturbance of the choroid. The microscopic appearance of the vessels showed that the intima was very greatly thickened in all the vessels; there was also an increase in the thickness of the outer coat; all the elements of which the vessel wall was made up were in places dissociated from one another.—Mr. LAWFORD inquired if there had been any opportunity of examining the vessels of other parts of the body.

Mr. SYDNEY STEPHENSON exhibited cases and read a description of the Scarring of the Conjunctiva from Ophthalmia Neonatorum. He had met with these conditions in eighty-two out of 15,316 school children examined, the percentage being much higher among pauper school children than among those of higher social grade. This scarring might be the only evidence of ophthalmia neonatorum, or might be accompanied by other results of this disease, such as corneal nebulæ, pyramidal cataract, &c.

Reviews and Notices of Books.

Atlas of Clinical Medicine. By BYROM BRAMWELL, M.D. Vol. I., Parts II. and III. Edinburgh: T. & A. Constable. 1891.

THE second and third parts of Dr. Byrom Bramwell's "Atlas of Clinical Medicine" fully justify the cordial welcome extended to the first instalment and the high hopes it elicited. The first part was so excellent that fears might have been entertained about the difficulty of maintaining such a high standard of work; these fears were, however, largely dispelled by the receipt of advance copies of many plates intended for later use, and the letterpress now supplied finally disposes of any uneasiness. The second part is mainly devoted to Addison's disease and Hodgkin's disease. The former is of course prefaced by an extract from the Sydenham Society's collection of Addison's works, to indicate the amount of credit due to his sagacity in detecting the relation between the well-marked constitutional symptoms of the affection, the peculiar pigmentation of the skin, and the structural changes in the suprarenal capsules. After this act of homage Dr. Bramwell enters at once into the symptomatology and into an analysis of the symptoms, and he enriches his description by numerous references both to cases and to the literature of the subject.

Of the pathology of this interesting disease there is a great deal to be said; but the most important section is that devoted to the observations of Drs. Alezais and Arnaud, who have shown that true sympathetic nervous ganglia are situated in the surface, and sometimes actually in the substance of the fibrous covering of the suprarenal bodies, and who think that the essential cause of the pigmentation and other characteristic symptoms lies in implication of these pericapsular nervous ganglia by a tubercular process extending from the suprarenal bodies. The various theories which have been advanced to explain the pathology of the disease are discussed with great fairness. Dr. Bramwell's opinion is that, in the ordinary typical cases, the capsular lesion is primary, and that the alterations in the nervous structures are secondary. Notes are given of two cases resembling Addison's disease, both marked by deep pigmentation; in the first the symptoms were due to Bright's disease and pregnancy, in the second they were apparently the result of chronic scurvy.

Dr. Bramwell follows with an account of some cases of diffuse melanotic sarcoma, with pigmentation of the skin, noting the rarity of this condition, but indicating the clinical features by which it may be distinguished from Addison's disease. Then comes a full description of Hodgkin's disease, or "lymphadenoma," which is illustrated by photo-gravures and sketches. Hodgkin's descriptive summary, written in 1832, is reproduced, and the independent work of Dr. Wilks in 1885 receives due notice. Throughout this section the author very properly insists upon the difficulty of differentiating cases of Hodgkin's disease from other conditions associated with enlargement of lymphatic glands, more particularly from simple local non-malignant lymphoma, and hence speaks of the prognosis with due reservation.

The third part deals with progressive unilateral atrophy of the face, chronic progressive bulbar paralysis, ophthalmoplegia, molluscum fibrosum, and xeroderma pigmentosum, and no less than twelve plates are furnished illustrating these different conditions. The pathology of facial hemiatrophy is discussed with great lucidity. The author's view is that the atrophy is the result of a nerve lesion involving the trophic nerve fibres or cells of the fifth nerve, and he considers that the balance of evidence is in favour of the central origin of the lesion. The description of chroni

progressive bulbar paralysis is very graphic and very complete. Although much space is devoted to the symptomatology, practitioners will find numerous most valuable hints upon the differential diagnosis, and much that is interesting in quotations from the writings of Duchenne, Trousseau, and others. The difficult subject of ophthalmoplegia is dealt with at some length and with characteristic care and thoroughness, while the remaining subjects are passed over more briefly but very satisfactorily.

It remains to add that the plates supplied with these two parts, more particularly the coloured plates, fully maintain the high standard of excellence reached in the first instalment. They are thoroughly well executed, and indicate the leading characteristics clearly and without exaggeration. Dr. Byrom Bramwell is to be heartily congratulated upon his work, and it is to be hoped that no unforeseen circumstances will interfere with its successful completion.

Diseases of the Throat, Nose, and Ear: a Clinical Manual for Students and Practitioners. By P. McBRIDE, M.D., F.R.C.P. Edin. Edinburgh and London: Young J. Pentland. 1892.

DR. McBRIDE'S views on many points connected with the subjects embraced in the title of this book are so well known and valued for the authoritativeness with which they are expressed that all will welcome a text-book from his pen. We expected something above the meagre average of similar productions, and we are not disappointed. While every attempt is made to place before the student current views, Dr. McBride has generally given fully his own opinions wherever desirable. Only too often in text-books the practitioner is perplexed by numerous statements of this, that, or the other authority, and finds little to guide him in his difficulties; while what he is actually needing—viz., the author's own ideas—is only too modestly withheld. In the book under discussion Dr. McBride states his own position with regard to many controversial points, and in such cases, in all probability, his statements will prove of considerable value to the practitioner seeking definite information. In reference to these points we may quote the chapter on the General Semeiology of Nasal Diseases, or the section on the Connexion between Diseases of the Throat and Nose and Middle Ear Affections. Dr. McBride appears to think that active and operative treatment of these regions is far too often undertaken as a matter of routine; while he impresses upon the reader the theory that affections of the anterior nares and pharynx, when coexisting with middle ear disease, need only be treated in so far as they are producing direct symptoms. In the main we are inclined to endorse this view, though, we suspect, it may be carried too far. Anyhow, a book that condemns the ruthless and irresponsible operating that is at present too much the fashion is a most desirable addition to our literature. There is little fault to be found. We could wish that in certain cases the author had been a little more communicative as to practical treatment; we do not think that everything has been said in some cases. Thus in the chapter on Chronic Laryngitis no allusion is made to the association of the affection with nasal obstruction, and its cure by the rectification of the latter condition. We think that although Dr. McBride may not agree with such views he yet should have made some reference to them, as they are endorsed by many trustworthy laryngologists. Indeed, he even advocates the use of a respirator, which can only be occasionally necessary when the nose is unable to do its work. Still more striking than this omission is the disregard of rhinitis sicca in the production of laryngitis sicca. This we should have opined was beyond all question. To be perfectly candid, although we have spoken strongly on the commendable attitude taken by the author in reference to the absurdities circulating with regard to the importance of a theoretical perfection in the condition of the nasal passages, we are yet inclined to think that he has gone too far in the opposite direction, and that the portion of the work devoted to diseases of the nose is somewhat meagre. Laryngeal and pharyngeal affections are fully discussed, but we are of opinion that the best portion is that devoted to the ear. Some will be a little doubtful as to the wisdom of incorporating this with the other sections, though doubtless there are arguments in favour of such an arrangement.

That Dr. McBride has plenty of material wherewith to fill a good volume is at once made evident by the paucity of illustrations. He has thought it inadvisable to crowd the pages with engravings of instruments, and we suspect that many a general practitioner will find this a somewhat serious omission. An illustration will convey a better idea of an instrument, and in smaller space, than could be given in the letterpress. All the illustrations are chromolithographs, incorporated with the text. Those representing diseases of the larynx are all that could be desired; while those, on the other hand, illustrating nasal affections are as conspicuously unsatisfactory. Thus we find an illustration of a mucous polypus as seen *in situ*, the tumour being a bright prussian blue, and its surroundings undistinguishable. The representation of the normal appearances of the nasal structures as seen from behind is incorrect in drawing and colour, and would prove very misleading to a beginner. But the illustrations of pathological conditions in the tympanic membranes are not surpassed in excellence in any of the many admirable atlases extant.

The general appearance of the work reflects great credit upon the care of the printers and the liberality of the publisher. The paper and typography could not be better; and although these are very small matters in discussing the value of a work, yet accuracy and elegance generally prove as attractive to the reader as they doubtless are to the author. We hope to see many editions of this valuable book.

A Manual of the Diseases of the Nervous System. By W. R. GOWERS, M.D., F.R.C.P., F.R.S. Second Edition. Vol. I: Diseases of the Nerves and Spinal Cord. London: J. & A. Churchill. 1892.

EVERYONE who is interested in the subject of nervous diseases must welcome the new edition of a work which is already a classic in more than one language and certainly on two continents. Dr. Gowers is to be congratulated on the partial completion of his arduous and self-imposed task, and upon the manner in which he has brought the discussion of the various subjects up to date in this new edition. It is in every way a worthy sequel to its predecessor, and in its thoroughness and completeness is almost beyond criticism; and if we call attention to a few points which have struck us in a perusal of the book, it is only because they have seemed to us points requiring special treatment.

A substantial addition of 150 pages has been made to the book. Of these, fifty are devoted to a detailed and very complete account of multiple neuritis. The account, as we have said, is complete, but it has the greater advantage of being extremely suggestive. Yet it seems to us that the classification into varieties has been carried to an extreme, although it may be that such a classification, in the elucidation of a subject to which only recently attention has been directed, is not only useful, but necessary, and may be regarded as the framework, to be replaced in good time by the complete and solid structure. Besides this section there are several other new ones, the most important of which are probably those on the peroneal type of atrophy and on Morvan's disease. In connexion with the latter also may be mentioned the exceedingly clear and succinct account given of Syringomyelia, a clinical entity only re-

cently recognised, and the pathological condition underlying which probably varies in different cases. The chapter also on Muscular Dystrophy strikes us as wanting in that firm cohesion which characterises most of the work. Here, too, there is a tendency to multiply types when we have really reached a stage at which the essential unity of various conditions is becoming more and more evident.

It would be idle to particularise the various parts to which additions have been made. They occur on almost every page, and the alterations are nearly always improvements. We have sufficiently indicated the excellences of the work, and we can give it no higher praise when we say that it is in every way worthy of its predecessor and of the reputation of its author.

Analytical Records.

LAKOLA PREPARATIONS.

(LAKOLA LIMITED, ST. ANDREW'S BRIDGE, GLASGOW.)

THE basis of the preparations we have received from this firm is the kola nut, and accordingly they all contain caffeine. The alkaloid was readily extracted on boiling a portion of the samples with chloroform after making them into a paste with lime. Caffeine so obtained was recognised by its silky crystalline appearance and by the red colour produced on evaporating it to dryness with chlorate of potash and hydrochloric acid; the red colour was changed to purple on addition of ammonia. Lakola essence is a spirituous extract and has a nutty flavour. It is a useful form of restorative, which may be taken in aerated water, in milk, or in tea. Lakola powder is similar to cocoa in appearance and taste, and is intended to be used in the same way. "Lakola" itself is a pasty mass, which is directed to be eaten spread upon bread in the same manner as butter, or to make cocoa, while the enhanced value of lakola chocolate is attributed to the fact that, in addition to ordinary chocolate, it contains the important constituents of the kola nut. Where, therefore, the restorative and sustaining properties of the kola nut are of value these preparations may confidently be tried.

BROWN BREAD.

(J. T. O'CALLAGHAN, WOOD GREEN, N.)

The meal from which this bread is prepared is said to be made by the roller process—that is, it is ground finely enough to pass through an 18 in. mesh wire sieve, so that it is freed from large flakes of bran and objectionable chaff. While it contains also the whole of the wheat grain, the external fibre and the beard are removed by decortication. Branny particles were recognised under the microscope, but they were evidently very small. There is doubtless a higher proportion of nourishing constituents in whole wheat meal, but it should of course be ground finely, as otherwise the branny particles may prove irritating. The bread under notice appears to have been prepared from meal thus scientifically treated.

MELLIN'S FOOD BISCUITS.

(G. MELLIN, MARLBRO' WORKS, PECKHAM.)

These biscuits are stated to contain about 50 per cent. of Mellin's food. This statement is to an extent confirmed by the fact that the mineral matter, amounting to as much as 2·02 per cent., consisted largely of alkaline phosphate. They are doubtless a valuable and convenient form of food, but their flavouring of ginger will not appeal to everybody's taste.

CAFFYN'S JELLY CARNIS.

(THE LIQUOR CARNIS CO., LIMITED, 50, HOLBORN-VIADUCT, E.C.)

It is satisfactory to find that the claims made with regard to this preparation are fully justified according to the results of independent chemical examination. First, the spectroscope showed that it contained the hæmoglobin of meat unaltered, as on dissolving some of the jelly in cold water, and placing the solution in a glass tank in front of the spectroscope, two well-defined absorption bands characteristic of fresh blood were very distinct. Then on boiling the solution a coagulum was obtained, and the filtered liquid no longer exhibited the absorption spectrum. One fluid ounce of the jelly so treated yielded no less than 10·19 grains of solid albuminous principles. Further examination gave the following results:—Moisture, 46·50 per cent.; organic matter, 47·91 per cent.; mineral matter, 5·59 per cent., consisting chiefly of soluble phosphate. The jelly possesses a sweet, pleasant taste, is attractive in appearance, and, on account of the presence of a small quantity of harmless preservative, keeps well. We regard it as a valuable addition to the excellent nutrient preparations already made by this company.

STERILISED MILK.

(COMPAGNIE GÉNÉRALE DES LAITS PURS, PARIS. F. TURIAN, 32, OAKFIELD-ROAD, STROUD-GREEN, N.)

The method adopted to sterilise this product may be pronounced to be a distinct success, inasmuch as our analysis shows that the composition of the milk is not altered by the process, all the valuable food elements being therefore retained. Moreover, the samples, after standing in a warm corner of the laboratory for several weeks, were found at the end of that time to be perfectly sweet. The results of analysis were as follows:—Total solids, 12·70 per cent.; non-fats, 9·38 per cent.; fat, 3·32 per cent.; mineral matter, 0·70. The fat was in a separated condition. The sterilised milk resembled boiled milk in taste. Search was made for preservatives, but without success.

TAKARADZUKA MINERAL WATER, JAPAN.

(H. J. STOCKTON, 16, PHILPOT-LANE, E.C.)

A peculiar acidulous flavour distinguishes this water from the rest of its class. It is agreeably sparkling, contains no organic matter, and yields on evaporation fifty-six grains per gallon of saline substances containing a notable quantity of iron and salicylic acid along with common salt and the carbonates of lime and magnesia. There exist, we understand, two distinct qualities of this interesting water, one intended for medicinal use and the other for the table. We presume that the sample of water containing the amount of mineral constituents above indicated is intended to be used medicinally, as according to the published account of an analysis before us the water examined contained only 35·63 parts of saline matter in 100,000, or 24·94 grains per gallon; that is, rather less than a half of the quantity found by us in the above specimen.

SPANISH WINES.

(A. SORDO LOPEZ, 15, GEORGE-STREET, PORTMAN-SQUARE, W.)

The two samples of wine submitted to us possess characters of their own which are probably distinctive of the wines produced in the district of Valdepenas in the south of Madrid. Red Valdepenas is the name of a full vigorous claret resembling good Burgundy. It is remarkably free from acid, has a delicate bouquet, and contains a distinct quantity of iron. White Valdepenas is more like a light dry sherry with a peculiar and almost smoky flavour. Both are really excellent wines, and they are offered at a very moderate price. Red Valdepenas submitted to analysis gave the following data:—Alcohol, 12·30 per cent. by weight (equal to 15·20 per cent. by volume); extract, 2·6 per cent.; mineral matter, 0·24 per cent. The white wine gave the following results:—Alcohol, 10·95 per cent. by weight (13·55 per cent. by volume); extract, 1·43 per cent.; mineral matter, 0·32 per cent.

UPPA COCOA (VAN HAEFTEN'S).

(VAN HAEFTEN, HOLLAND.)

As should be the case with all genuine cocoas, this specimen yields an infusion of good flavour, is easily soluble, and contains no excess of indigestible fat.

THE LANCET.

LONDON: SATURDAY, MAY 14, 1892.

THE interim report of the Royal Commission on Vaccination, the text of which we print elsewhere, is a document of considerable importance. And its importance is increased when we remember that in order to give present effect to the principal recommendation embodied in the report, legislation dealing with the question of vaccination will become necessary, and this before the Commission have so much as heard some of the principal witnesses on whose evidence such a recommendation should be based. One of the headings under which the Commission decided to take evidence is—"Any improvements that can be suggested in the present law or its administration for the purpose of removing objections to vaccination or making it more effective." The Commission have been sitting nearly three years, but they have not as yet even reached this heading, and although they have before them volumes of evidence as to "the case in favour of vaccination," and as to "the case against vaccination," they say not a word on these important subjects, but, oddly enough, elect to criticise the "administration" of "the present law," the evidence as to which is not yet before them. This attitude is, to say the least, a curious one; and considering that every "interim" report is supposed to be subject to revision when the full report follows, it seems difficult to understand how legislative effect can be given to their recommendation, and if no such effect is intended to be given, the result of the report can only be to leave matters in even greater confusion than they were before; for vaccination authorities and magistrates will, on the one hand, have a statutory duty to perform, and, on the other hand, they will have been told that the performance of that duty should in one respect "no longer be possible."

We have no intention of entering into the question of the prison treatment of those who break the law as to vaccination and whose fines are not paid. We have much sympathy with these people, whom we believe to be largely guided by persons who lead their followers into an attitude of unbelief which the leaders do not themselves entertain, and who, for reasons which we do not propose here to discuss, contrive to keep dark their true convictions as to the protective power of vaccination against small-pox, by involving the question in a number of side considerations. The real importance of the interim report lies in the statement that "the imposition of repeated penalties in respect of the vaccination of the same child should no longer be possible." It would be idle to say that a recommendation bearing on this subject was not expected to appear when the Commission had ended its labours, but there are not many who were prepared for such an unconditional abandonment of this power of enforcing obedience to the vaccination laws, nor will there be many who are able to appreciate the main reason assigned by the Commission for the change

The Committee of the House of Commons, which was appointed in 1871 to inquire into the operation of the Act of 1867, reported that, "with regard to repeated convictions and penalties," they were of opinion that "whenever in any case two penalties or one full penalty have been imposed upon a parent the magistrate should not impose any further penalty in respect of the same child." A Bill embodying the suggestions of the Committee was passed by the House of Commons, but the clause giving effect to this recommendation was struck out by the House of Lords. The present Commission go much further, and they suggest that, quite irrespectively of the amount or the number of fines, repeated penalties ought not to be possible; and if legislative effect be given to this there will be districts in which the only alternative will lie between the protection of children against small-pox or the payment of a fine of sixpence or a shilling. And what is the main reason assigned for this? Even those, say the Commissioners, who incline to the view that vaccination ought to be compulsory "believe that any advantage which may arise from the tendency of repeated convictions to increase the number of the vaccinated is more than counterbalanced by the resentment and active opposition which they engender." As we have already implied, the recommendations of a Royal Commission should be based on the evidence laid before them, and at the onset of the sittings of the Commission in question it was clearly the intention that this should be so in the present instance, for whilst "objections" were to be heard, "the reply to these objections" was to follow. Doubtless objections to repeated penalties have been heard, but those who administer the vaccination laws—namely, guardians and their representatives and magistrates—have not been heard, and the matter has thus been decided on lines quite foreign to those usually governing judicial decisions in this country. This is the more unfortunate because we are convinced that if the Commission had only waited until they had heard "the reply" they would have received from those guardians who have honestly done their duty to maintain the law abundant evidence to show that the reason assigned is contrary to experience. One single small fine has but little deterrent effect; the trouble of paying it is trivial to a parent who thinks less of protection against small-pox than of a few days and nights passed with an infant rendered irritable by reason of the progress of vaccinia; and whereas many careless people—and it is essentially the poor and ignorant who are careless as to this—are willing to incur the domestic difficulties involved in vaccination rather than pay a substantial fine or be subject to repeated legal proceedings, many will be found who, having no knowledge or even opinion concerning the protective power of vaccination, will elect to pay a fine in districts where the magistrates are lenient, and so go scot-free, until small-pox comes, when they will flood the vaccination stations which they formerly affected to despise. In this way it is that the many who are careless, not the few who are real opponents to vaccination, will swell the number of the unvaccinated. And this it is that the Select Committee of 1871 evidently had in view when, on the evidence laid before them, they decided that either a full penalty or two penalties must in each case be imposed before interference ceased.

We must now await the result of the issue of this ill-timed document, trusting that evidence will still be forthcoming to show the Commission that they have gone beyond the necessities of the case, even as that case is put forward by themselves; and remembering that the Commission distinctly announce that they have arrived at their conclusion "quite independently of the question whether vaccination should continue to be compulsorily enforced or not." This, and the vital question as to the value of vaccination as a protection against small-pox, are points not touched upon, and they will, apparently, not be in any way dealt with until the final report is issued.

SOME little stir has been caused in the minds of our professional brethren in Ireland by an Order in Council which was lately made by His Excellency the Lord Lieutenant, and which contains the following paragraph: "When any vacancy shall happen in the office of consulting and visiting physician or of apothecary in any district asylum, no person shall henceforth be appointed to fill the same." The Council of the Irish Medical Association have taken umbrage at this ukase, in regard to which they have issued a somewhat lengthy protest, in which they urge, upon a variety of grounds, the retention of the office of visiting physician. They hold that the services of an occasional consultant are available only at about three or four out of the twenty-two asylums, and that they can never be an efficient substitute for those of the regular visiting physician. They further urge that, "from a public point of view, it is undesirable that the responsibility for the control of several hundred persons under coercive discipline and penal restraint should be vested in any one officer, however exemplary or competent." They add: "The public at large is very jealous, and even suspicious, as to the disciplinary arrangements of lunatic asylums; and the Council respectfully submits that, even if there be no reasonable ground for such jealousy or suspicion, it is very undesirable to remove from the lunacy system the only extern officer in daily communication with the inmates, and independent of, and irresponsible for, the official management of the institution."

We are not prepared to accept the expressions "coercive discipline" and "penal restraint" as conveying a truthful idea of what asylum life in Ireland either is or is intended to be, but we are not unwilling to give the views of the Council in their own words, as the fullest expression of all that can be said in favour of retaining the office. We are more than doubtful whether these words will convince the ordinary lay mind as to the need for a visiting physician; still less will they bring conviction on this point to the minds of those who have any practical experience of the working and administration of asylums for the care and treatment of the insane. Putting aside indications in the very statements themselves, the best evidence that the arguments of the Council are theoretical ones only lies in the fact that they imply that the office of visiting physician to an asylum is an unmixed good in which the public should be asked to bury all its jealous fears and its suspicions. A visiting physician has no doubt an awkward, and frequently an unenviable, part to play. If he asserts himself and makes his presence and his prescriptions felt by the inmates, he cannot but be conscious that he is upsetting the discipline of the asylum by interfering with the authority of the superintendent, and that he is doing as he would not like to be done by. If he does not assert himself and make his presence felt, and practically does nothing, he may possibly feel that he is a nonentity, and that he is more or less receiving the reward of duties which he has not duly performed. He is on the horns of a dilemma; he cannot help himself, and his most successful and least troublesome policy is one of masterly inactivity and of complacent negation—for which the public has to pay.

We are far from saying or thinking that the ideal office of visiting physician was originally a useless creation; but experience appears to have shown that the unavoidable interweaving of the duties of the visiting physician with those of the resident medical superintendent has a tendency to weaken rather than to strengthen the administration of an asylum. The history of this question puts us in possession of the fact that in countries where the office of visiting physician existed, it had sooner or later to be abandoned as incompatible with the best and most desirable results, and we are not aware of any insurmountable grounds upon which Ireland can insist upon maintaining a post whose equivalent has been expunged in England, Scotland, France, Germany, and America, countries where the treatment of the insane has admittedly made most material progress in the direction of humane and kindly consideration with most gratifying success. Indeed, so far back as 1858 a strong Royal Commission on Lunacy for Ireland recommended in effect that the office should be discontinued; and at that time the amount of extramural visitation of asylums, and of contact of the inmates with the outer world, was much more restricted than it is in the present day.

Coming to more recent times, the question has been frequently under consideration when the treatment and management of lunatics and lunatic asylums have been discussed. In 1890 a Committee on Lunacy Administration in Ireland was appointed by the Lord-Lieutenant, and it consisted of Sir ARTHUR MITCHELL, one of the Medical Commissioners in Lunacy for Scotland; Mr. HOLMES, Treasury Remembrancer for Ireland; and Mr. MACCABE, Medical Commissioner for the Local Government Board for Ireland. In their report they speak as follows on this subject: "Consulting and visiting physicians are attached to all the district asylums of Ireland. We are of opinion that a new Lunacy Law should contain provisions for bringing this arrangement to an end, either by enacting that vacancies, as they occur, shall not be filled, or in some other way. Visiting physicians relieve superintendents of responsibilities of which they should not be relieved. At the same time they do not afford him the assistance which consultants afford to general practitioners, who in their difficulties take the advice of a surgeon in certain cases, of an oculist in others, of a physician in others, of an obstetrician in others, and so on. A superintendent should be allowed, when he is in difficulty, to obtain the advice which is likely to be useful to his patient, in view of the nature of the malady in connexion with which the difficulty arises. He may be safely trusted to do this judiciously.'

This is surely not unreasonable, that the insane in asylums should have the same opportunity of being specially treated as the sane outside. On this report, and in taking a general and comparative view of all the circumstances, practical and theoretical, with which the question is invested, we feel satisfied that his Excellency and the Irish executive have been well advised in abolishing the office of visiting physicians as vacancies occur. At all events, there are not wanting ample grounds upon which the experiment may be tried, and even if it should result in failure the office can be reconstituted.

THE important duty of getting rid of uninhabitable houses or insanitary property devolves on the sanitary authority, and requires to be carried out with discrimination. In towns of less than 100,000 the corporations, as a rule, are loth to undertake on their own account any buildings for the population so displaced; and, on the other hand, private enterprise in the way of building houses for such tenants may fall short of actual requirements. The occupants of these insanitary houses are of the lowest and poorest class, of whom house-owners and agents generally fight shy. There will always be a residuum in the population of a town. In large towns and cities where CROSS'S and TORRENS' Acts can be adopted the difficulties are not so great, and the ratepayers not so punctilious as to the spending of their money as is the case in small towns. In small towns every penny spent on sanitary measures is watched with a jealous eye; and as it is difficult to show a money return for any improvement, it is not easy to persuade the inhabitants that the health of the people is a matter of primary importance and one that well repays any outlay. As an example of the slowness of reforms in the destruction of unhealthy dwellings we may instance Wigan in Lancashire, an old town with many dilapidated dwellings, and a population of over 55,000. The Insanitary Houses Committee, in consequence of charges being made against them of proceeding with undue haste in demolishing houses unfit for human habitation, have just issued a report of their doings. They state that on Jan. 18th, 1886, their medical officer (Mr. BARNISH) called attention in his monthly report to that of Dr. BUCHANAN (the late medical officer of the Local Government Board) in 1870. Dr. BUCHANAN stated that amongst the chief sanitary defects of Wigan were the badly constructed and badly ventilated houses, and the courts with back-to-back houses. Mr. RADCLIFFE confirmed this report in 1873.

Mr. BARNISH in this report condemned twenty-two houses under the Artisans and Labourers' Dwellings Act, 1868, the borough surveyor confirming this decision. On April 12th, 1886, the town clerk presented a report on the law, together with information received from various towns, as to the action they had taken with respect to insanitary property. The sanitary committee then decided to take no action till the medical officer had reported on the whole of the insanitary houses in the borough. Dr. PAGE on Nov. 15th, 1886, urged that the authority should act upon the reports of the medical officer of health and the borough engineer. In January, 1887, the medical officer presented the first section of his report dealing with the whole of Scholes Ward, in which he condemned 1120 houses. The borough engineer stated that of these 754 houses could not be rendered sanitary by means of structural alteration. On Aug. 3rd a special committee was appointed to consider the question of dealing with insanitary property and to report to the Council thereon. The committee found that this property in many cases belonged to people depending upon the rents for a bare subsistence, and, as the Council had no power to compensate, the committee, on Oct. 1st, 1887, decided to recommend the Council to apply for power to pay compensation for property demolished, and for this purpose to borrow £10,000. This recommendation was adopted on Oct. 29th, 1887. The Council in 1889 accordingly promoted a Bill in Parliament (The Wigan Corporation Act, 1889), which was passed, and Section 98 gives the Corporation power to pay compensation for buildings unfit for habitation.

On Nov. 22nd, 1889, the Insanitary Houses Committee was appointed, and in May, 1890, they decided to proceed under the Artisans and Labourers' Dwellings Acts. After the passing of the Housing of the Working Classes Act, 1890, which repealed the Artisans and Labourers' Dwellings Acts, the Council adopted its provisions, and subsequently proceedings were taken against various owners of insanitary property, the result being that in the majority of cases the owners agreed to demolition on receiving compensation at the rate of five years' purchase on an average of three years' net rental, whilst others have made structural alterations so as to render the property habitable. The number of houses with regard to which proceedings for closing have been taken since 1890 is 484. The number of those actually demolished, and for which compensation has been paid, is 199; of those not compensated for, but demolished, 72; of those which owners have agreed to demolish, 84; of notices served and action pending, 101; and of premises made sanitary, 23. Fifty-nine out of the 484 houses were unoccupied for twelve months before demolition. The total amount paid in compensation was £3430 8s. 10d. Since the first block of insanitary property was demolished building plans have been passed for 570 houses of the cottage class, the number erected and occupied being 235. The number of houses in course of erection is 144. We cannot say that there has been undue haste in dealing with the worst class of cottage property; however, the matter has been taken in hand, and it will now be the duty of the Sanitary Committee to prevent overcrowding in the new dwellings.

Wigan may be fairly congratulated on having made some progress since Sir G. BUCHANAN visited the town in 1870. Since then the privy system has been abolished, and the pail system adopted; a complete system of sewerage, with a modern sewage farm, has been made at great cost; a sanatorium for infectious diseases on the most modern and approved plans has been provided; and now what with the destruction of unhealthy dwellings, the erection of new baths, and a good water-supply, the town may claim to be on a par with any other town of a similar size.

IT had been expected by most of the graduates of the University of London that either at the meeting of Convocation on Tuesday last, or at the Presentation on

Wednesday, some definite course of procedure on the part of the authorities of the University, in view of the recently appointed Royal Commission, would have been decided on; but any such anticipations were disappointed. Both meetings have passed, and all we learn is that the Senate will not take up any attitude of simple obstruction during the proceedings of the Royal Commission, and that the Senate will steadily persist in their endeavour to keep up the present high standard of the degrees, as otherwise their prestige might be diminished. Lord DERBY, who presided on Presentation Day for the first time as Chancellor, was anything but optimistic in his survey of the position of the problem of higher education in London, and expressed a great doubt whether the Royal Commissioners would come to a unanimous conclusion. He also, as has been the usual course throughout the agitation, ignored the subject of medical degrees, and their vital interest to the public, to London medical teachers, and to students. The importance of this question to the student—namely, whether he can obtain a degree by studying in the best clinical schools in the kingdom on similar terms to those on which it is granted by Scotch and provincial universities having inferior facilities for practical teaching—seems to have been passed over by a Senate which has no other idea in medical education than to fix an abnormally high standard for a pass degree and then shut its eyes to the disadvantages which this entails on an average London medical student. According to Sir JOHN LUBBOCK there is no need for a second University in London, but should a Teaching University ever be established, the proper place, he considers, for the existing University is at its head. We would point out to Sir J. LUBBOCK that the present University performs no university functions, has no special relations to higher education in London, or to the colleges and medical schools in which such an education is given, and that all attempts at its remodelling in this direction have proved unsuccessful. Must we believe that such an advocate of scientific education fails to see that an examination board for the British Empire and a local Teaching University for this metropolis are essentially different in design and in functions?

At the meeting of Convocation it was resolved to request the Annual Committee to "represent and guard the interests of Convocation generally in all matters connected with the Royal Commission, and any scheme which may be submitted to it," and the House was very excited on being told that no member whom they could regard as a representative of the London University had been placed on the Royal Commission. Mr. ANSTIE, Q.C., who is a member of Convocation as well as of the Senate, was at once stated to be only the nominee of the latter body. Evidently Convocation does not agree with the Chancellor as to the scrupulous fairness with which all the bodies interested are represented on the Commission. The opinions of a large number of London graduates, and the spirit in which they may be expected to approach a question which is vital to the metropolis, may be best judged from the two propositions laid down in a circular issued to influence the election of members of the Annual Committee, and which states: "(1) That no second University should be established in London; (2) that the University should be extended so as to fulfil any reasonable requirements of the Royal Commission in respect of a Teaching University, but without any lowering of the present standard of degrees, and so that students unattached to any institution associated with the University should not be placed at a disadvantage." Here we have it plainly laid down that Convocation is to do everything in its power to prevent any lowering of a degree—which has been declared to be an Honours degree—to a pass standard, and to oppose the formation of a real Teaching University, which would not be tied by the traditions and prejudices of the existing University. It is clear that, if the Senate is not prepared to adopt a policy of obstruction, a large number of the graduates will do all they can to prevent the London students obtaining the just advantages which are granted to those who have had a similar education elsewhere. If the conclusions of the new Commission—over which Earl COWPER, who is now returning from Spain, will preside— in any way correspond to those of the former Commission and of the Privy Council, it will be the duty of Parliament to prevent such an obstructive attitude being again successful.

Annotations.

"Ne quid nimis."

PRESENTATION TO SIR GEORGE BUCHANAN, M.D., F.R.S.

WE drew attention a short time since to the proposal to present to Sir George Buchanan, F.R.S., some substantial and permanent memento of the esteem and regard in which he is held, and of the illustrious services which he has rendered to medicine as a science, and especially to preventive medicine, during the long term of his official career in the Public Health Department of the State, both under the Privy Council Office and the Local Government Board. We are now able to announce that an important general committee has been formed with a view of giving effect to the proposal, and that quite apart from this committee the scheme is receiving the active support of a number of leading members of the medical profession and of the Public Health Service. It is also noteworthy that the Society of Medical Officers of Health have expressed a desire that, independently of representation on the general committee, their hearty coöperation in the proposal should be prominently set out before the public and the profession. The amount of subscription is limited to a maximum of two guineas, more importance being attached to securing a large number of subscribers than to the total amount of the subscriptions.

THERAPEUTICS IN PARLIAMENT.

WHATEVER may be thought of Parliament, it is not a body from which one expects much light in questions of medical education, especially at 2 o'clock in the morning. This was the hour at which Mr. Balfour, with a humanity which cannot be too much admired, restrained himself when invited by Dr. Clark to speak on the motion for presenting an address to Her Majesty praying her to withhold her consent from certain Ordinances made by the Commissioners under the Universities (Scotland) Act, 1889. We are not disposed to blame either members or the Government for refusing to interfere with the ordinances, especially in an exhausted House, at the end of another discussion on an excited subject. For all that, we heartily approve the protest entered by Dr. Farquharson, in the name of teachers

of materia medica and therapeutics, against what must be regarded as a thoroughly retrograde step in the recent ordinances which place the examination in these important subjects at the time of the examination in anatomy and physiology. It is just twenty-one years since the following resolution was passed by the General Medical Council on the rightful place of these subjects:—"That it is desirable that the instruction in pharmacy should be separated from that in therapeutics, and that the former should be obtained at an early and the latter at a later period of the professional curriculum." This subject was much discussed at that time. The resolution expressed the view of all the best authorities on medical education of the time, and it was proposed and seconded by the very two members of the Council who carried most weight on such questions—namely, Dr. Parkes and Sir Robert Christison. Ever since then the subject of therapeutics has been placed at an advanced stage of medical education, and the examination in it has been correspondingly late. It is, indeed, obviously absurd that a student should be examined in the action of medicines and their uses in disease before he has been tested in physiology and had the means of learning the nature of disease, the extent to which its course can be affected by drugs, and the wisdom of attempting any such interference. This, in fact, is one of the latest lessons to be learnt by the best students and by the wisest practitioners. We entirely sympathise with Dr. Farquharson and the teachers of materia medica and therapeutics in their opposition to this part of the recent ordinances. They will, of course, not abandon their opposition. They will surely be heard by the Privy Council, and it cannot be doubted that their lordships will, on such a matter, take into account the long-established recommendations of the General Medical Council. The inspectors of the Council and medical examiners are constantly finding grave ignorance of the uses and the doses of medicine even in otherwise accomplished and creditable students, and this is of the very essence of the question of qualification to practise. The Ordinances also reduce seriously the education in practical pharmacy. We cannot now discuss the best ways of improving this. But it is as reasonable to expect a soldier to do well in battle without familiarity with guns and swords as to expect a medical student to do well without a sound familiarity with the chief properties of the principal drugs and their preparations.

PROFESSOR MOSSO ON FEMALE EDUCATION.

ANTHROPOLOGICAL RESEARCH has no more acute and independent votary than the Professor of Physiology at Turin, whose lecture on "Brain Temperatures" before the Royal Society we had occasion recently to summarise and comment upon. His treatise, "Sulla Fatica"—on the physiological antecedents and pathological consequences of exhaustion, physical and mental,—is already a classic, exemplifying as it does that combination of scientific substance with literary form which, as Professor Butcher has just reminded us lately, reached its highest development in Ancient Greece. As much may be said of his scarcely less brilliant book, "Sulla Paura,"—on the phenomena of fear—a medico-psychological study which his compatriots point to with justice as a very favourable specimen of the subtler, while rigidly scientific, work of the sub-alpine school. Nor must we omit from his anthropological "record" his investigations into the craniology and general physical development of the Roman soldier—investigations which led up to the proof that the far-famed Tenth Legion—the veterans of Caius Julius, who "went everywhere and did everything"—were not superior in physique (whatever their discipline may have been) to the British, or even the continental, soldiery of the present day. These conclusions, indeed, gave direction and force to his recent paper on "Reform in Athletics," in which he points out for the benefit of his compatriots how far their gymnasial adjuncts to school work proper are deficient in the method and the *rationale* which made the Greek and Roman *palaestra* at its best an admirable "condition precedent" of the *mens sana in corpore sano*. The views of so accomplished and impartial an investigator and critic are eminently worthy of consideration, especially on a subject so keenly controverted as the medical view of "sex in education." On this theme of present interest Professor Mosso delivered on the 6th inst., in the presence of the Queen of Italy, a brilliant discourse—the last of the series on the education and the work of woman, which have been given under Royal countenance during the winter and spring at the Collegio Romano of Rome. The lecture was in all respects suitable to the occasion and creditable to its author, and we shall take an early opportunity of summarising its leading positions as the contribution of the most eminent of Italian physiologists to the *quæstio vexata* of fitting woman for her place in the household and in society.

NOTICES TO CORONERS FROM MEDICAL PRACTITIONERS.

IN THE LANCET of April 30th allusion was made to some remarks which Mr. Oliver Pemberton, the coroner for Birmingham, felt called upon to make at an inquest as to the duty incumbent upon medical practitioners of duly informing the coroner of any deaths occurring under circumstances which might render notification to the coroner necessary. We have received from Mr. Pemberton a copy of the printed form which he uses and sends to members of the profession. Coroners have complained justly of the various modes in which the information regarding unregistrable deaths reaches them. A person dies suddenly, or a body is found, and it often becomes a case of "What is everybody's business is nobody's business." Sooner or later a medical practitioner is called, and as he is generally the best informed person present, often the only one competent to do so, he should not fail to send notice to the coroner. The information which he is able to give is most valuable, and no time should be lost in sending it, either by post, by messenger, or even by telegram, should distance render this desirable. Coroners' inquests, coroners, and especially medical coroners, are very much in evidence just now, and it behoves all members of the profession to do their utmost to make inquests exhaustive medical inquiries into the cause of death.

INFANTICIDE UNLIMITED.

THE records of infanticide in this country have revealed nothing which will equal in methodical and callous wickedness the disclosures recently made in a Russian court of law. The history of a trial which has just reached its close at Vilna states that eleven persons have been charged and seven convicted of the deliberate murder, or complicity in the murder, of at least sixty-five infants. These children evidently belonged to the "unwanted" class. Many of them appear to have perished merely from wanton exposure and neglect. Others were poisoned, drowned, strangled, or otherwise suffocated. The case, almost, though as we shall see, not quite, unique in its multiplied barbarity, is in several ways deserving of particular note. The motive was obviously that of gain. Murder was adopted merely as a means of livelihood. Its plan followed no regular indications, but was covert or open, violent or subtle, as circumstances might seem to require. It is remarkable, however, that its perpetrators appear to have acted with singular want of caution, as if liable to no great risk of detection. It has been stated that they were persons of Jewish extraction, though whether this assertion

can be substantiated we are unable to say. It recalls what we have always regarded as a slander of the middle ages, and one which is utterly out of keeping with the ordinary character of the Jews—a people essentially law-abiding and particularly averse to crimes of violence. Their accusation in this case may possibly prove to be only another instance of myth created by racial prejudice. However this may be, the commission of a series of aggravated crimes with so little precaution, taken along with a like precedent reported a couple of years ago (THE LANCET Nov. 22nd, 1890), cannot but suggest a doubt as to the efficiency of executive authorities. Such would be its certain consequence in this country, and probably in Russia also. Notwithstanding the vastness of that empire, decentralisation is not a strong point in its system of government. A question naturally arises whether this principle should not be more freely applied, due regard being had to its orderly administration. By this means, aided by special provisions which would not be superfluous in the law of any country, such monstrous excesses of crime as those above described would become practically impossible.

THE FLESH OF DISEASED CATTLE.

NO idea can be formed of the amount of flesh of animals which have died or been killed because of disease, that finds its way into the market as human food. There can scarcely be a doubt that thousands, perhaps tens of thousands, of cattle, sheep, and pigs are bought by the less reputable butcher or the "dropped meat salesman," and prepared by them for consumption, the beasts being at the time of purchase hopelessly ill or already dead. A great traffic must be going on in such flesh, as the carcases are rarely buried, and inquiries at the knackeries tend to prove that they very rarely find their way to these establishments. It is generally the custom for the owners of sick animals to send for the butcher to take them away either dead or alive, and probably after they have received a large quantity of drugs, some of these being, perhaps, of a poisonous description. What becomes of the carcases we can only surmise, but that they are dressed and exposed for sale can scarcely admit of a doubt; indeed, it is a moral certainty to which veterinary surgeons and others could testify. Even in the ordinary slaughter-houses diseased animals can often be seen either before or after death, and the fact of their flesh being refused sale is never heard of. The butchers could tell some startling stories with regard to this matter if they cared to do so; but everything is kept dark respecting it, and it is only at rare intervals that a chance discovery is made of some carcase that should have been buried, being found either in transit to the meat market or actually exposed for sale on the butcher's stall. The slaughter-houses are private places where anything may be done in the way of dressing up diseased carcases without much fear of detection, either there or afterwards; and there is only too much reason to apprehend that great cruelty to animals is inflicted at times in such obscure places. The only remedy appears to be the introduction of public abattoirs wherever possible, and, where these cannot be established, the institution of a system of thorough inspection of the private slaughter-houses. There should also be some means of preventing the carcases of animals that have died from disease, or been killed on the owners' premises because of illness, from finding their way into the meat market, unless certified by some competent person as fit for human consumption. For it must be remembered that in the great majority of instances such flesh must be not only of poor quality, but possibly absolutely dangerous either from its own special poisonous properties, or because of the drugs which may have been administered before death. When the carcases have once been dressed by a cunning butcher—as men who engage themselves in such a business usually are—it is very difficult indeed to detect anything amiss with them by even a moderately skilled person, and they therefore escape notice, as a rule. Veterinary surgeons, especially those in country practice, could do much in restraining this nefarious trade of the "dropped-meat" salesman; but a wide-ranging and systematic inspection of slaughter-houses and meat is the only sure safeguard for the public health. Of the prevalence of disease, parasitic and other, among animals whose flesh is consumed by man, we have ample evidence in the reports published periodically by the continental public abbatoirs, and there is no reason to expect that such disorders are less extensive in this country; while added to these we have the secret disorders—such as puerperal fever, anthrax, tuberculosis, swine-plague, &c.—which are not in evidence in these establishments, with the exception of tuberculosis, animals which are so affected, but are in good or fair condition, being often sent there for slaughter.

CHOLERA PROSPECTS.

CHOLERA is causing a good deal of anxiety to the Russian Government. The disease is stated to have broken out in Afghanistan as well as in Persia, and it is feared that it may make its way into the Transcaspian provinces, the sanitary state of which is deplorable. Owing to the filthy state of the irrigation canals and to the general neglect in Bokhara and Transcaspia it is believed that cholera, once imported, would spread both rapidly and in a virulent form. Hence a Commission of Prevention has been appointed, and it is stated that directly news is received to the effect that either Herat or Candahar is infected, prompt measures of control on the Russian frontier will be initiated. In the meantime, sanitary improvements, especially with regard to water-supply, are being undertaken. But these are hardly likely to be of much avail in the face of any immediate danger, for such works cannot be perfected at a moment's notice.

THE MEDICAL MISSIONARY.

THE truly philanthropic career which has just been cut short by the sudden death of the Rev. John Lowe, F.R.C.S. Edin., demands from us a word of recognition, not only of the man himself, but of the cause in whose service he lived and died. Mr. Lowe was a typical specimen of the medical missionary as that professional product is developed—to its honour be it said—so prolifically north of the Tweed. The son of a Congregational minister, he early saw where his true field of usefulness lay, and in qualifying for the combined work of body-healing and soul-awakening he showed by his zeal in study, both medical and theological, the high estimate he had formed of the vocation he had chosen for his own. The London Missionary Society was quite alive to his claims on its confidence when it sent him out some thirty years ago to work at the station at Travancore. Eight years' service there indicated him in March, 1871, as the proper man to superintend the Training Institution of the Edinburgh Medical Missionary Society—a post which he filled so well that in 1883 the Society made him its own secretary. His twofold work he continued to discharge with exemplary skill and devotion till 1890, when its increasing complexity induced the directors of the Society to give him an assistant superintendent in Dr. Hoernlé. With each successive year the institution scored fresh marks of efficiency; some notion of its progress may be inferred from the fact that, whereas in 1871 it had but seven students in preparation and an annual income of but £1476, it was able on its jubilee last February to announce that its male students alone numbered twenty-

nine, to say nothing of its lady novitiates; that fully seventy of its former students are at work on foreign stations; and that its yearly income is £6000. Nor is its expansion likely to stop there. It has outgrown its premises in the Cowgate, and is contemplating their enlargement by devoting *ad hoc* a portion of the jubilee memorial fund. To Mr. Lowe belongs great part of the credit of this most gratifying state of things, efficient as he was, not only in the professional qualifications aimed at by the promoters of the institution, but also in the spirit of work which produced an honourable emulation among its *personnel* and in that organising and administrative power which are themselves a rare and uncommunicable gift. No wonder that the sudden collapse at his post of so valuable a functionary should have impressed all friends of the medical missionary movement with something of a sense of personal loss. But his "work doth follow him," his example survives, and his masterly treatise on "Medical Missions, their Place and Power," enshrines the usefulness of the Edinburgh Society in a literary form, which has already carried its name and fame over the civilised world. Another publication of his, "The Life of Dr. Elmslie of Cashmere," is a beautiful tribute to a kindred soul, extinguished in sight of the richer harvest its philanthropic energy had prepared, and will in turn be followed by another biography still more inspiring to future labourers in the same humanitarian field—"The Life of the Rev. John Lowe, F.R.C.S. Edin."

THE BRAVERY OF BRITISH WORKMEN.

HISTORY records the unselfish deeds and the bravery of our soldiers in time of danger, and future history will record the bravery of our workmen who earn their daily bread amidst great danger and imminent peril. An inquest was held last week by Mr. Brighouse, county coroner, at Parr, near St. Helens, on a man named Richard Gill, aged fifty years. About a year and a half ago he was working in the shaft of a coal mine with three other men, blasting rock. The deceased, after the shots were ready, told the other men to get into the hopper. He then lighted the fuse connected with the shots, and then got into the hopper. He fancied he had given the wrong signal, and jumped out of the hopper to cut off the fuses. He managed to cut off one, but the others were too far burned. The other men begged him to give the signal to ascend and get into the hopper, but he said, "No, I will stay where I am. It is better for one man to die than for all." Just then the hopper began to ascend and the other men were drawn to the top, and soon after Gill pulled the signal wire and they went down to him and found him badly injured about the head. He had a compound fracture of the skull, and remained five months in hospital, but never got over his injury.

LONDON MEDICAL OFFICERS OF HEALTH.

WE announced last week that Mr. F. M. Corner had resigned the position of medical officer of health of Poplar for the reason that recent legislation, particularly the Public Health (London) Act, had so increased his duties that he could not conscientiously fulfil them. Mr. Corner's resignation is to be regretted, for his work in Poplar has been excellent, and under existing circumstances it cannot be expected that the district will be as well served as it has been in the past. The circumstances to which we refer are those which will place the public health service of London on a less satisfactory footing than it has hitherto been. While the duties of the medical officer of health have been added to year by year, and while the responsibility attaching to the office has greatly increased, the remuneration has either remained the same or has become still smaller. The result is that capable men with a sense of duty and responsibility will be driven from the public health service. However devoted they may be to that branch of the profession which aims at the prevention of disease, they have duties also to their families, and it will not be found that for merely nominal salaries they will undertake work which must make greater claims upon their time than is compatible with other work necessary for them to make proper provision for those dependent upon them. The public has to learn that in medicine as in other professions there are differences between those who constitute it, and it is certainly not to the advantage of the public service that it should be recruited from the ranks of those who would not be successful in its other branches. Men with skill and energy will find themselves debarred from entering one of the most useful branches of the profession. If medical officers of health are paid adequate salaries they can afford to keep their other work within limits; but at the present time nominal salaries are attached to the office, and it is expected that a large share of the officer's time shall be at the disposal of his authority. It has been urged that by reducing the salaries of higher officials, local authorities will be able to pay more liberal wages to the working men in its service. There is no one more desirous than ourselves that working people should be adequately paid, but we fail to see that this can only be brought about by reducing the scale of remuneration of an office requiring knowledge and ability which in other branches of the profession bring ample return. There is no class of the community more interested in the maintenance of an efficient public health service than the working people of London, and we do not doubt they would be the first to rebel at any failure to protect them from disease which is the result of an unwise parsimony. London can well afford to pay all its servants adequately, and certainly the difference between the amount of salary which is now paid and that which should be paid to the health officer is too trifling to affect the general question of the proper payment of working men.

MENTAL IMPROVEMENT AFTER TREPHINING.

THIS important subject is treated of in an article in a recent number of the *Medical News* by Dr. Hugo Engel of Philadelphia, with special reference to a case in which an operation of this nature was carried out. The patient was a boy fourteen years old, who was said to have been mentally bright and physically healthy until his sixth year, when he became subject to convulsions. These began one day without any apparent cause, and have never since ceased for any length of time. There was no family history of epilepsy or insanity, and there was no accident to account for the onset of convulsions. The fits had been becoming gradually more and more frequent, until at last he was having as many as twenty-one in twenty-four hours. But the interesting point is that the boy's intellect is said to have been, up to the time at which the fits commenced, of a higher order than is usually met with in a boy of his age; but since the fits began a gradual deterioration had been taking place, until he became dull and vicious, and finally seemed simple and almost idiotic and not unfrequently maniacal. There was a peculiar conformation of the skull, the appearance being as if it had been crushed in at the junction of the parietal and frontal bones, and Dr. Engel seems to have regarded this as the result of premature closing of the fontanelles and too early union of the sagittal and coronal sutures, and, from the effect of this on the brain apparently, he was in the state of extreme mal-development which he showed. Except that he was endowed with speech—of a guttural and monotonous character, it is true—he resembled a savage young

animal rather than a boy, in his behaviour generally. Under a systematic use of the bromides the convulsions became much less frequent and less severe, but no great change was evidenced in the mental condition, and it was decided to operate with the view of relieving the abnormal pressure on the brain, which from the conformation of the skull it was thought must be present. Two operations were carried out by removing portions of bone from the right frontal and parietal bones immediately contiguous to the coronal suture. The second operation was carried out after an interval of three months had elapsed from the first. For five weeks after the first and for two weeks after the second operation he had no attacks, but after that they increased in frequency, but never became so frequent as before, while their character was very much changed, so that instead of severe convulsions with clonic spasms, he now had attacks of loss of consciousness, with slight twitchings. But the chief improvement was in his mental condition, and from an idiotic, sulking savage he developed into a bright, lively, and good-natured boy. His former irritability and moroseness were replaced by good-nature, and now, to all inquiries, he made intelligent replies, whereas formerly he only sulked when asked questions. He also expressed a wish to go to school, and his perception was wonderfully quickened, so that a complete change was the result of surgical interference in this case. Such a result is, of course, extremely significant; but it remains to be seen in what cases operative measures are likely to effect so much as they apparently did in this case. But at least Dr. Engel and his surgical colleague, Mr. Packard, are to be congratulated on the brilliant success which followed interference in a case which could not, even to the sanguine, have appeared very promising.

THE STRUTHERS TESTIMONIAL FUND.

WE understand from Dr. James Anderson, the secretary and treasurer of the Struthers Testimonial Fund, that Sir George Reid, P.R.S.A., has now finished his portrait of Professor Struthers, and is at work on the replica for Marischal College, Aberdeen. It is proposed that the portrait should be presented to Professor Struthers on Wednesday, May 18th, at 4.30 P.M., by Sir Andrew Clark, Bart., at 16, Cavendish-square. A photo-engraving of the portrait will be prepared, under Sir George Reid's supervision, by Messrs. T. and R. Annan and Sons, and will cost, for subscribers, half a guinea; for non-subscribers, a guinea.

THE INTERNATIONAL HORTICULTURAL EXHIBITION.

THE Duke of Connaught, who was accompanied by the Bishop of London and Mrs. Temple, Lord Ashbourne, Lord Rowton, and Sir G. Baden Powell, formally opened the Horticultural Exhibition at Earl's-court on Saturday last, May 7th. The weather, inasmuch as it was all that could be desired—a bright sunny day—it may be hoped will augur well for the future success of the undertaking. The beauty of the subject of the exhibition is one of course which must appeal to everyone. Horticulture is both science and art, and it is illustrated with such consummate skill and excellent taste that the exhibition at Earl's-court is certain to please as well as educate. The growth and development of the horticultural art in this country from Tudor times to the present is fully demonstrated, and gardens of the Continental and Eastern type, both of ancient and existing periods, are exquisitely modelled. In one very effective grouping is shown a well-contrasted display of the horticultural products and characteristics of ancient Rome, of the Tudor days, of modern Italy, of ancient Egypt, of Jacobean times, and of India, Japan, and China; while a very extensive collection of the flowers, plants, trees, and shrubs of the present day gives an admirable representation of the Victorian era. Altogether the exhibition compares very favourably with its predecessors, and, judging from our inspection on Saturday last, the promoters have certainly at their disposal all the means to provide liberally for the healthy amusement and recreation of the visitors.

DEATH UNDER CHLOROFORM.

OPERATIONS about the mouth and naso-pharynx have their peculiar dangers and difficulties, not only on account of the operative measures themselves, but also from the extreme care with which the anæsthetic requires to be given. Unfortunately, these points were illustrated by a death which took place at the Hospital for Diseases of the Throat on Saturday, April 30th. The patient, a boy aged twelve, suffered from a polypus in the ear, as well as a throat affection, and it was decided to give him chloroform, as the operator, Dr. J. W. Bond, stated ether would produce more bleeding, and some general anæsthetic was necessary owing to the painful character of the operation. The removal of the polypus was effected, and the operator noticed that respiration had ceased. Artificial respiration, promptly performed, failed to resuscitate the boy. At the necropsy, the report states, the heart was found to be enlarged, and had a larger quantity of fat upon its surface than is common at so early a period of life. The report before us does not say who was the administrator, nor does it mention the posture of the patient. These and other points are too often omitted in the evidence given before coroners, and when not supplied are not always obtainable subsequently.

A NEW USE OF THE TITLE M.B.

AT an inquest at Hull by Mr. Thorney, the borough coroner, it transpired that the patient had received medicines from a person named Priestley, who used the letters M.B. after his name. Mr. Priestley meant by this "medical botanist." The coroner said Mr. Priestley had no right to attach the initials after his name when he knew they meant something else. We think that a more seriously false and misleading use of medical titles could not well be imagined.

TUBERCULOCIDIN.

SINCE the announcement made by Koch, more than a year ago, that he had discovered a substance which had a selective action on tubercle, many observers have been working on the properties of this substance which he named tuberculin. Foremost among such has been Klebs. In the *Deutsche Medicinische Wochenschrift*, 1891, No. 45, he reported that by precipitation with platinum chloride and the so-called alkaloid reagents he was able to separate from tuberculin an active principle, which he termed alexin or tuberculocidin, which has the same action on tubercle that tuberculin has, but without causing the depression produced by it. Klebs has since published a monograph on the subject—"Die Behandlung der Tuberculose mit Tuberculocidin"—of which a short abstract is given in the *Medical News* (New York) of April 16th, 1892. Klebs believes that the efficacy of this substance depends upon an influence exerted on the tubercle bacilli, resulting in their degeneration. Thus large doses, by causing rapid disintegration of tuberculous tissue, produce some elevation of temperature by a form of auto-inoculation with tuberculin. Tuberculocidin does not cause necrosis of the affected tissues. The process appears to be one of involution associated with exudation. That this body is not merely an attenuated form of tuberculin is demonstrated by the fact that although the former represents by weight one-fortieth of the latter,

an injection of a decigramme (0·1) of the one is followed by no elevation of temperature, while an injection of two milligrammes and a half (0·0025) of the other is followed by febrile reaction. In man the initial dose of tuberculocidin is about two milligrammes (0·002); if this occasions no unpleasant manifestations, the dose is rapidly increased to a decigramme (0·1), or a decigramme and a half (0·15). Hectic fever is no counter-indication—in fact, energetic treatment may cause its disappearance. The injections should be made daily for a month, and then intermitted for the same length of time, to be resumed or not according to the indications present. When urgent symptoms occur other therapeutic measures may be advantageously employed in conjunction with the injections. Nearly a hundred cases, principally of pulmonary tuberculosis, have been treated with tuberculocidin. Of seventy-five, in which a reasonable time had elapsed, fourteen appeared to have been cured, forty-five were improved, fourteen remain unimproved, and two died. Complications were universally absent. Such results are certainly encouraging; but after recent experiences medical men are naturally sceptical about accepting as an absolutely curative measure the treatment of tuberculosis by injections of substances allied to tuberculin. Many, however, are still of opinion that the reaction against Koch's method of treatment went too far, and much interest will be felt in watching the outcome of the numerous investigations now in progress that have for their object the treatment of such a widespread disease as tuberculosis.

REMUNERATION OF HEALTH OFFICERS.

THE attitude taken by the Local Government Board as to the salary of the East Barnet Valley medical officer of health has in the end resulted in a satisfactory arrangement. That Board held that a salary of some £30 was insufficient, and they refused to certify for repayment of one half of it out of the county funds. Later on the salary was somewhat raised, but now the local board have determined to pay a sum of £75 yearly and to ask for repayment. In doing this they testify that they are influenced by the extremely satisfactory and efficient manner in which Mr. Roughton has performed his duties.

MEDICAL LEGISLATION IN NEW SOUTH WALES.

IN medical legislation it is impossible to please everybody. The discussion now going on in the public papers of the colony shows this, and exhibits a strange variety of views even in those who might be expected to think alike. One man is sensible in nine points, and very unsatisfactory in his tenth. Fortunately, public opinion everywhere is in favour of legislation that enables the public to distinguish the qualified from the unqualified; and there is scarcely less unanimity in favour of giving power to bodies and to the medical councils created by such legislation to preserve a certain tone and standard of professional ethics. There are exceptions, however, even here, and we are astonished to find men who write sensibly and have good qualifications speak lightly of the disciplinary powers of the medical authorities. A practitioner, writing in the *Sydney Morning Herald* on the Medical Bill, objects mainly to the fact that in the Medical Council it creates there is no direct representation of the profession. The Council is to consist of ten members, five appointed by the governor and five by the Senate of the University of Sydney. We entirely agree with him in this objection. There ought to be a substantial representation in the Council of the registered practitioners of the colony, and no Council can be considered final or satisfactory which does not contain such an element. By all means this defect should be remedied. On the other hand, the writer's views are very unsatisfactory in regard to the disciplinary powers of the Council. "No medical man should be punished for acts which are not a violation of the laws of the land." "The Council should not be allowed to wander out into the shady lands of professional etiquette." We do not approve such sentiments. They are opposed to the whole spirit and tradition of the profession, and, we may add, to the whole interest of the public. The profession has its own refined duties and its own refined laws. The next sentence is significant. "The standard of professional etiquette in these colonies is just as low as it well can be." Is not this admission the very proof that other laws are wanted for the regulation of a high profession than the mere laws of the land. We trust that such views will not prevail. The duties of medical men are of the most delicate kind. Fraud and imposture and worse are very possible under cover of its functions. *Corruptio optimi pessima.* And the medical profession owes it alike to itself and the public to have a standard of morals equal to its standard of duty.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE second course of lectures at the Royal College of Surgeons will be given in the theatre of the College at 4 P.M. during the remainder of May and June as follows:—Dr. J. Rose Bradford will deliver three lectures on the Physiology of the Vaso-motor System on Monday, May 23rd, Wednesday, 25th, and Friday, 27th. Professor C. W. M. Moullin will give three lectures on the Operative Treatment of Hypertrophy of the Prostate on Monday, May 30th, Wednesday, June 1st, and Friday, June 3rd. Professor H. B. Robinson will give three lectures on Certain Diseases of the Breast on Tuesday, June 7th, Wednesday, 8th, and Friday, 10th. Professor W. Watson Cheyne will deliver three lectures on the Treatment of Surgical Tubercular Diseases, on Monday, Wednesday, and Friday, June 13th, 15th, and 17th. Professor H. T. Butlin will give three lectures, on Monday, Wednesday, and Friday, June 20th, 22nd, and 24th, on Cancer of the Scrotum in Chimney Sweeps and others.

MEDICAL ESTIMATE OF ALCOHOL IN NEW YORK.

THERE seems to be a decided wish to summarise the opinion of medical men on the momentous subject of the habitual use of alcohol. Several attempts of the sort have been made in England. None of them have been satisfactory. There has been an air of insincerity in many of them, the names of physicians who were known to be non-abstainers themselves being often paraded as censors of the public in its use of alcohol. Besides, it is impossible for physicians in a small space to express themselves on such a subject without danger of being misunderstood—in other words, without the public misapprehending the import of their testimony. Moreover, this is eminently a question where opinion should be weighed as well as counted. Those who are most ready to give an opinion, and most dogmatic and positive in its expression, are often of least authority in the matter. We have before us, in a supplement of *Frank Leslie's Weekly*, the result of an attempt to ascertain the opinion of every medical practitioner in New York. Every physician was asked to reply to the question, "Is the moderate use of wine and beer injurious to the health of grown persons?" By dint of importunity, and putting the question over and over again to the 2900 physicians practising in New York City, 675 replies only have been received. Less than a fourth have yielded to the temptation to see their opinions in print. The answers are described under the following heads—negative 435, semi-negative 88, affirmative 152—that is, that the largest number do not believe that the moderate use of wine and beer is injurious to the health of grown persons.

There is every variety of opinion and every qualification of opinion expressed. Thus one gentleman thinks that no alcohol should be allowed under any circumstances, except on the advice of at least two physicians. This same gentleman adds: "I would not advise with any physician that I knew was in the habit of drinking wine or beer habitually." On the other hand, a physician, nearly eighty years of age, has taken wine from his childhood, and says: "I was well acquainted in Hungary with a physician 106 years old who was able to visit patients and give a very good lecture on materia medica. He drank wine twice daily, eight ounces each time, and I have heard him say many times that without wine he would not live a minute." There is to discriminating readers interest even in opinions which are extreme. But we are inclined most to praise the 2225 physicians who withheld their opinion, agreeing with a practitioner who replies "that voting on scientific questions is harmful to science and truth; scientific problems cannot be solved by majorities." The reasons for total abstinence must be found in other than medical considerations. But while we doubt the wisdom of medical men giving a rounded opinion on so large a question for popular use, we cannot too strongly emphasise their responsibility in reference to it, and the importance alike of their prescriptions and their example. There are many drugs which are apt to be continued after the need for them has passed away. The same is true of diet. And the physician is apt to find the patient, whom perhaps he has saved from death by the timely use of alcohol, persisting in its use months after the conditions which indicated its employment have ceased.

THE VACANT CORONERSHIPS FOR THE NEWINGTON DISTRICT AND WESTERN DIVISION OF THE COUNTY OF LONDON.

IT has been stated in a leading daily paper that the vacancy for the coronership caused by Mr. Carter's death will not be filled up by a new appointment, but by dividing the Newington district into three portions, giving one to each of the three coroners for neighbouring districts, Mr. Braxton Hicks, Mr. Wyatt, and Mr. Carttar. It is also stated that the division over which the late Dr. Diplock presided as coroner is to be divided into two—the London, or larger portion, and the Middlesex, or smaller one. Whether these statements be correct or not, remains to be seen; but whether there will be one, two, or three vacancies, one thing is clear—viz., that there is no dearth of most eligible medical candidates. Dr. W. Wynn Westcott comes forward with such qualifications for the office as have rarely ever been possessed by any previous candidate for this or any other vacant coronership. He has been deputy coroner to Dr. Danford Thomas for the last nine years, and during that time has held over two thousand inquests. His medical qualifications are those of M.B.Lond., M.R.C.S.Eng., and L.S.A., which were obtained twenty-two years ago, in addition to which he has made special studies of forensic medicine, public health, criminal laws, and the laws of evidence. He has also worked at practical analysis at the College of State medicine, and among other contributions to medical literature he has published "A Coroner's Notes on Sudden Death," "The Bloomsbury Mystery, a Medico legal Essay," and "A Summary of Deaths in London Caused by Excess of Alcohol." Dr. Westcott has unexceptionable testimonials from Dr. Danford Thomas, Sir Andrew Clark, Sir Henry Thompson, Drs. B. W. Richardson and G. V. Poore. Should the members of the London County Council decide to elect him to one of the vacant offices, they will do credit to themselves and be consulting the public interests. Dr. Luxmore Drew has also very high qualifications for the office of coroner, being a barrister in addition to possessing excellent medical qualifications and testimonials. Dr. Grierson Gledhill is a barrister and member of the Northern Circuit, as well as a Bachelor of Medicine, Master of Surgery, &c. Dr. Bernard O'Connor also possesses legal and medical qualifications, being a Doctor of Medicine, Member of the Royal College of Physicians, London, as well as Barrister-at-Law of Gray's Inn, Middlesex, and North London Sessions and Central Criminal Court. Dr. G. E. Yarrow, barrister-at-law, is also an applicant for the vacant coronership. It is to be hoped that the electorate will take notice of this desire on the part of medical candidates to acquire legal qualifications, so as to make themselves doubly eligible, and to satisfy those many persons who think that the coroner should possess a legal training. Barristers and solicitors have not shown themselves equally anxious to satisfy the public in the much more important qualification of a medical training, probably because the study o anatomy, pathology, and the numerous subjects of the medical curriculum, requires much more self-denial and patience than the training for the bar. Mr. Leonard Bramah Diplock, L.S.A., son of the late coroner, and Dr. George A. Bateman, honorary secretary of the Medical Defence Union, are also medical candidates for the vacancies, the latter having been a student for the bar. Probably other medical candidates may come forward, but in any case it will be clear from the foregoing that the London County Council will not have any want of eligible medical candidates whose claims to the office over merely legal candidates do not admit of argument, being irresistible. And now that they have satisfied the public prejudice by acquiring legal qualifications, there remains no justification for their claims being overlooked. Each county councillor should be individually informed of the paramount claims which members of the medical profession have for the office of coroner.

COLOUR PHOTOGRAPHY.

THE beautiful process of colour photography, briefly alluded to in the article on the conversazione of the Royal Society in our last issue, is doubtless an important step, in one direction, towards attaining the reproduction of colour by means of the camera, and as the subject is one of very general interest we give a few more facts concerning Mr. Ives' ingenious method. Mr. Ives prepares, by means of a compound camera front, three photographic negatives of the object by simultaneous and equal exposure, from the same point of view and upon the same sensitive plate. The photographic plate is sensitive to all colours of light; but by interposing certain media or light filters one of the negatives is produced by only such light rays as excite in due proportion the fundamental red sensation; another by light rays as they excite the fundamental green sensation; and another by light rays as they excite the fundamental blue-violet sensation. From this triple negative a corresponding triple lantern slide may be made, which, although it shows no colour in the ordinary way, contains such a graphic record of the natural colours that in order to reproduce them to the eye it is sufficient merely to superpose the three images, one with red light, one with green, and one with blue-violet. This is accomplished either in Mr. Ives' new helio-chromoscope, a device about the size and pattern of a hand stereoscope, and used in much the same way, or by projection with a special form of optical lantern, having three optical systems with red, green, and blue glasses. The three images, being exactly superposed, appear on the screen as one only, in which the natural colours are faithfully reproduced, together with the light and shade. Images of three ordinary photographs, exactly alike, if superposed in the same way, through the same

coloured glasses would show no colour whatever. Although it would appear that photographic prints cannot easily be obtained by this process, yet the fact that pathological specimens, for instance, may by this means be projected on the screen with the original colours, all faithfully portrayed, will doubtless afford exceptional aid to the demonstrator. The process will also render signal service in other departments of scientific research.

THE SPREAD OF SMALL-POX.

AMONGST the localities newly infected with small-pox we hear of a few cases at Acton, and of an outbreak at Denaby Main near Doncaster, where two cottages have been turned into a hospital. The disease is still maintained in the Dewsbury district, and cases remain under isolation at Yarmouth, at Pembroke Dock, at Liverpool, and other places. In short, the somewhat wide distribution of the infection necessarily causes anxiety both as regards the immediate future and perhaps still more so as regards the prospects of an exacerbation later on, even if the present season is got over without any further diffusion of infection.

TOBACCO-SMOKING AMONG BOYS.

As long as the habit of tobacco-smoking remains a common practice among men, so long may we expect that the boyhood of the time will acknowledge its fascination. It is therefore in a sense as natural as it is morbid that the soothing weed should be numbered among the mischievous absurdities of growing youth. This is much to be regretted for several reasons. Constitutionally, the boy is not even a lesser man. Between his young and vigorous nervous system and that of the male adult there is this essential difference—the one is developing, the other formed. Endowed with greater elasticity, the former is also in proportion less stable, and such effects as the narcosis of tobacco cannot at all assist, but must more or less pervert, its normal activity. The man's more settled nerves are less affected. Then with boys the smoking habit is, in its way, a first love, and as such is almost certain to be indulged to excess. The circulatory and nerve structures are overworked in consequence, digestion suffers, and, whatever may survive of physical energy, we have often to note a decrease in constitutional soundness. Influenced, no doubt, by such reasons as these, and others of more general and social significance, the medical faculty in Manchester, in reply to a circular issued by the Anti-Tobacco League, have set themselves to seek a mitigation of the foolish evil. Their recommendations follow much the same line as that adopted by the Manchester Conference a year ago, in advising the suppression by law of smoking among boys under sixteen years of age. The well-known example of Germany in this matter is worthy of general imitation. It has already been reproduced (*vide* THE LANCET, Aug. 25th, 1890) in the State law of New York, boys under the said age being forbidden to smoke in public.

SENSATIONAL EXHIBITIONS.

THE miserable fate of a man who died recently in the City Hospital, St. Louis, U.S.A., might be noted with profit by the more daring class of professional jugglers. In this case the offence against which nature ultimately rebelled with fatal energy consisted chiefly in a habit of swallowing nails, tacks, and pieces of glass. The "freak of nature" was also a famous heavy-weight lifter, and even went the length of sustaining the weight of a horse weighing 1050 lb., which traversed a plank laid across the chest. After some six years of tack-eating the unfortunate performer was seized with persistent vomiting, probably not the first attack of its kind, with progressive signs of collapse, and died in four days, notwithstanding the removal by operative measures of a quantity of the unnatural diet above mentioned. A post-mortem examination revealed the presence in the œsophagus, stomach, and intestines of several ounces of glass and tacks, the mucous membrane being also extensively ulcerated. We have repeatedly expressed our disapproval of the exhibitions offered to satisfy a morbid public taste for the extraordinary by professional sensation-mongers. It is not often, indeed, that an opportunity occurs for demonstrating so exactly as in the case just recorded the fallacy of such performances and their frequent deadly significance as regards the exhibited wonder. We quote this fresh example of its kind as conveying in its most forcible form a proof that these exhibitions are still far too little subject to the control of police authorities, and that no pretext of public expediency or personal liberty can excuse practices which are frequently nothing less than suicidal.

SEX AND MUSIC.

SIR J. CRICHTON-BROWNE'S oration before the Medical Society has been read with interest far beyond the circle to which it was immediately addressed, having penetrated to quarters usually impervious to physiological enlightenment and hygienic remonstrance. No need, therefore, to apologise for returning to it, charged as it is with an educational value which re-discussion will be found to strengthen, certainly not to impair. Even before the differences between the sexes in cerebral structure and function were so scientifically demonstrable as now, there were practical tests in the sphere of education itself which pointed irresistibly to the conclusion arrived at by the medical orator. Take, for instance, the art of music. There is no room here for the contention that, as compared with the boy, the girl has not had fair play—that opportunities for cultivating the art have in her case been few, in his case many. The reverse is the truth. If there is a branch of education in which girls have been schooled to the neglect of every other, it is precisely that of music. It is among the primary subjects to which she is put, and among the very last she is allowed to leave off. Not one hour a day but many hours out of the twenty-four are consumed by her at the piano, to say nothing of other instruments, while singing lessons are usually given in supplement to these. It might have been thought that if practice gives perfection woman would have excelled her male counterpart not only as an executant but as a composer. But what are the facts? In instrumental performance she cannot for a moment compare with him, while as to composition she is nowhere. The repertory of music from the dawn of the art to the present day owes simply nothing to her. Considering the time she has spent over it, her failure to evolve new harmonies or even new melodies is one of the most extraordinary enigmas in the history of the fine arts. It has been remarked, but never explained, by such accomplished æsthetic writers as Lady Eastlake in her celebrated essay on "Music," and by such keen psychological analysts as Mr. G. H. Lewes in his "Life of Goethe"; it is, indeed, a problem still awaiting solution, unless we can solve it by an appeal to such facts as Sir J. Crichton-Browne adduced in his recent oration—the inferiority of woman to man in the cerebral substratum of ideo-motor energy. Why with such a record of "no results"—so far, at least, as the production of a female Handel or Beethoven or even a female Glück or Bellini is concerned—music should usurp such a preponderant place in girls' education it is difficult to divine. We have seen the practice defended on the same grounds on which in our classical schools the writing of Greek and Latin verse is vindicated: a finer appreciation is thus attained, in the girls' case, of musical

excellence, in the boys' of the Hellenic and Latin masterpieces. "'Tis better to have tried and failed than never to have tried at all," while failure gives a truer sense of what perfection consists in. Such is the argument—for what it is worth. But even on this analogy the boy sometimes succeeds where the girl invariably fails. In George Buchanan, John Milton, Arthur Johnston, Joseph Addison, Vincent Bourne, Thomas Gray, to say nothing of the late Marquess Wellesley and Benjamin Hall Kennedy, we have classical poets hardly inferior to any but the best of antiquity; but where, in ancient times or in modern, can woman, with all her practice, be found to have created one *chef-d'œuvre* in music? The inference implied by the negative answer to such a question seems simply this: that in the higher efforts of mind—even in those where the admixture of an emotional element, as in music, might be supposed to give her the advantage—woman is inferior to her male counterpart, and cannot by any educational forcing system be made to equal him—deficient as she is in the physiological conditions of ideo-plastic power.

CHOLERA IN INDIA.

THERE does not yet appear to have been time to furnish any statistical summary of the results of the progress of cholera in India in connexion with the late outbreak of that disease at Hurdwar. The fair at that place this year does not seem to have been one of the largest of the kind. The great fair, which occurs once in twelve years, took place last year; and, whether owing to the admirable sanitary arrangements made by the Government or not we cannot say, no epidemic then took place like that which has occurred in the smaller gathering of the present year. According to the latest reports from India there had been up to April 13th last seventeen deaths from cholera out of twenty-seven attacks on the road to Simla, which place is the seat of government during the hot season. The disease appeared at Meean Meer, and it is stated to have caused a considerable exodus from that place. Cholera broke out in the 16th Bengal Cavalry—three cases and one death occurred in one day—and the medical officer rejoined his regiment at Meean Meer from eave. According to a telegram of the 11th inst. from Simla, epidemic cholera is raging at Cabul, and the Ameer is encamped outside the city.

"OUR GIDEON GRAYS."

THE memorial erected on Tuesday last to the late Mr. Joseph Tonks, M.R.C.S., at Willenhall comes to remind a preoccupied world of the heroism that often links itself to the unobtrusive career of "our Gideon Grays" in town as well as country. Here was a general practitioner, able and accomplished in his profession, who was content to live and labour among the poor of a populous neighbourhood, and,

Nel mezzo del cammin di nostra vita,

to go down to a premature grave with no other reward than the silent tears and the scarce audible blessings that well up from hearts rich in nothing but gratitude. Mr. Tonks was peculiarly the "poor man's doctor"—not, as the cynic would put it, that he was "good enough" for a humble *clientèle*, but in the sense that "he knew his art but not his trade," as Swift said of Arbuthnot, or, as a still earlier moralist, embodied it in verse—

Homo sum: humani nihil a me alienum puto.

In one of the least happily inspired effusions of the Poet Laureate he draws a picture of a coarse, unfeeling martinet of a practitioner whom even infantile suffering could not soften, and who carried the spirit of the experimenter or the laboratory student into the "homes where poor men lie." Such a medical monstrosity may have existed in Lord Tennyson's experience, for no profession is without its unworthy representatives; but the portrait was manifestly nothing more than a caricature—to be atoned for by a counter-presentation, such as few of our towns or villages could fail to furnish, in which the poet would do not more justice to the profession he has maligned than to his own genius, that had stooped to the exceptional in life and the inartistic in inspiration. "Look on this picture and on that," he might well enable his readers to say, by contrasting with his caricature, the portrait of a hero, so humble and yet so high, as the "poor man's doctor" of Willenhall. Few more touching narratives have come before us than that of the ceremonial of Tuesday last, when every approach to the monument about to be unveiled in remembrance of Mr. Tonks was densely packed by multitudes anxious to pay the tribute of their presence at the unveiling of a memorial which their pennies had defrayed. Not by the gold and silver of the rich, as the spokesman of the occasion said, but by the infinite multiplication of the poor man's copper and the widow's mite had the memorial fund been subscribed, until the monument itself had reached an amplitude that, seconded by artistic design and execution, made it, as Mr. Lawson Tait, who worthily performed the ceremony of unveiling, observed, "a work of art in a community where works of art were not too common." The artistic sense may, indeed, be gratified, and, among the appreciative few be refined and stimulated by a public monument like this; but its true function will be to keep prominent before the people the beauty and nobility of a life that marched to the

Still, sad music of humanity,

until, prematurely it may be, but ripe and rich in performance, it closed amid the blessings of the community on which its best energies were expended and to which its example is bequeathed.

THE SANITARY STATE OF MONMOUTH.

WE are glad to learn that the Town Council of Monmouth have decided to carry out an efficient system of drainage for the borough. We have had to refer to other sanitary defects in Monmouth than those that can be remedied by sewers, but the action decided on indicates a determination to move in the right direction, and it is to be hoped that such matters as slaughter-houses, piggeries, &c., will not be allowed to continue sources of nuisance in a town the sewerage of which is to be placed in a satisfactory condition.

THE DENTAL HOSPITAL OF LONDON.

WE understand that the Dental Hospital of London is contemplating moving to a new site as soon as the money is forthcoming. The sum required will probably be about £40,000. Promises have already been received from the medical staff and friends of the hospital to the amount of about £3000, and as soon as £20,000 is collected to purchase a suitable site a new building will be started. The present hospital, which has for many years so ably fulfilled its duties, has, with the increasing number of patients and students, become too small for present requirements. It was hoped that some portion of premises at the back of the present hospital could be acquired, but this is now impracticable, and it is therefore only possible to provide an adequate building both in relation to area and proper equipment in every department by obtaining a piece of ground with larger area. In the days when Sir Edwin Saunders so generously provided £5000 towards moving the hospital from Soho-square to its present site there was probably an entry of about ten students a year, while at present the entry is over fifty. It is manifest that even with the recent addition of a small house that the accommodation at present is a little cramped, while at the rate gentlemen are re-

gistering as dental students much greater area will be required to provide a sufficient number of chairs. From the fact that this hospital is for the treatment of the teeth only, it does not, perhaps, receive that support from the public it deserves. To carry on a dental hospital the annual expenditure is necessarily large for the materials used, and, notwithstanding the fact that the teeth are considered of trifling importance, there is no doubt they are serious factors in the general welfare of the public. Much local and constitutional troubles would be saved were the public really careful about the sanitary condition of their mouths.

EXPERIMENTS WITH SNAKE POISON.

WE gather from a late number of the *Pioneer Mail* that an opportunity has arisen—in connexion with the construction of a new and improved snake-house at the Calcutta Zoological Gardens, which will contain specimens of all the principal poisonous snakes in the country—of making experiments in a systematic manner with snake poison for scientific and practical purposes. Considering the loss of life in India attributable to this cause, it is a matter for the Imperial rather than for any provincial Government of that country to take up, and the Lieutenant-Governor of Bengal has, it is understood, addressed the Government of India on the subject. It is proposed to fit up a small laboratory in connexion with the snake-house for the purpose of prosecuting inquiries bearing upon the pathology of snake bite and cognate subjects, and of testing by experiment the various alleged remedies for snake bite which are from time to time brought to notice. The Calcutta Zoological Gardens would offer opportunities for instituting such inquiries which probably could not be had anywhere else in the world; and Surgeon-Major D. D. Cunningham, who is eminently fitted for organising and initiating such a work, and is president of the committee of the Zoological Gardens, will, it is believed, be willing to render effective aid in the matter.

LONDON DUST REMOVAL.

THE vestries and district boards in London are constantly threatened with new dangers. The Public Health (London) Act must have caused some anxiety to those who regulate our local affairs, especially the provision which enables the householder to recover a penalty of £20 from the sanitary authority if the latter neglect to remove his house-dust within forty-eight hours after written notice. A householder in the Strand has, however, adopted a course which has been more disastrous to the sanitary authority than the infliction of any penalty permitted by the Public Health Act. He had been for some time at variance with the authority as to the removal of his house dust. He had visited the offices of the board, and had been promised that the dust collector should pay a weekly visit to his house for this purpose; but this promise had not been kept, and he had constantly either verbally or by letter applied to the board or its solicitors, or clerk, or surveyor, but without satisfactory result. In June of last year he applied to Mr. Vaughan of Bow-street, and was told that a warrant should be issued if the matter was not attended to; and finally, having suffered from a swollen and relaxed throat, and a mild form of inflammation of stomach and intestines, he had been obliged to leave his home and travel, and he now brought an action to recover damages from the Strand Board of Works for "alleged refusal and neglect to collect and remove his house refuse, whereby the malodorous smell caused him serious illness." Two medical men were called, and gave evidence as to the plaintiff's condition before he left London, and they attributed his illness to the smells from decomposed animal and vegetable refuse in the dust-bin. Among the points of interest raised in the hearing of the case were two—one, the statement that the plaintiff was unable to avoid throwing kitchen refuse into the dust-bin, because at times he had only a gas fire in use; the other, the contention of the sanitary authority that, having contracted for the removal of all the refuse in the Strand district, it was relieved of liability in the matter. Upon the latter point Mr. Justice Grantham decided that this objection could not be accepted. Finally, the plaintiff was awarded £75 damages. We trust that this case will be carefully studied by every sanitary authority in London, and that some better effort will be made than heretofore to bring about a more complete system of refuse removal. Householders may regard with satisfaction the refusal of Mr. Justice Grantham to allow a sanitary authority to disclaim liability for omissions on the part of its contractors.

ISOLATION AT CARDIFF.

THE conflict of opinion as to the duty of dealing with infectious disease in the case of persons who are either actually destitute or bordering on destitution when sick has been significantly illustrated in the case of a commercial traveller at Cardiff, who claimed from the guardians a sum of money for the maintenance of two fever patients who were lodgers in his house, and who were actually relieved by the relieving officer. He added that he sought to get the cases removed to the workhouse, whereupon, according to the local press, "the medical officer threatened to institute proceedings against him if they were ejected, there being no proper accommodation for them in the town." The case was decided against the plaintiff. There is, indeed, no obligation upon Poor-law guardians to provide for the infectious sick; they have a duty as to maintaining the destitute, but no duty as to the accommodation of even the infectious sick in such a way as to protect the community against the spread of infection. The Public Health Act, 1875, has imposed the latter duty on the sanitary authority, quite irrespectively of the position of the sick person as to destitution. These cases of conflict always arise in towns and districts where the sanitary authorities have failed to make proper provision for the isolation of infectious cases, and it is by no means creditable that a large and important borough like Cardiff should have been content to remain so long without such elementary means of protecting the public health.

GLASGOW UNIVERSITY CLUB.

THE Glasgow University Club met on Wednesday, May 4th, at the Freemasons' Tavern, under the presidency of Lord Shand. Among those present were Lord Kinnear, Mr. James A. Campbell, LL.D., M.P., Mr. Walter Severn, R.C.A., Professor G. G. Ramsay, Professor J. M. Thomson (honorary treasurer), Mr. J. R. McIlraith (honorary secretary), Dr. Heron, and others. Lord Shand intimated that letters of apology had been received from Lord Watson, Sir George H. B. MacLeod, Lord Kelvin, Principal Caird, Canon Ainger, Professor W. T. Gairdner, Lord Stair, &c. His lordship then proposed the toast of "The Queen" in appropriate terms, and subsequently "The Glasgow University Club, London." Lord Kinnear proposed the toast of "Our Alma Mater," and Professor G. G. Ramsay, replying thereto, remarked that Lord Kinnear, in proposing the toast, was very like an executioner proposing the health of his victim, for he had taken a chief part in the great reforms which would shortly take effect in the University. Mr. George Lillie Craik proposed "The Guests," coupling this toast with the name of Mr. Walter Severn, President of the Dudley Gallery, who replied; and the proceedings were brought to a close by Mr. James A. Campbell,

M.P., proposing "The Chairman, Lord Shand." For the information of those of our readers who are connected with the Glasgow University we may mention that the secretaries of the club are Professor D. W. Finlay, M.D., F.R.C.P., The College, Aberdeen, and Mr. J. R. Mellraith, M.A., LL.B., Barrister-at-law, 4, Harcourt-buildings, Temple, London.

INFANTILE CEREBRAL PALSY.

IN an article in the *New York Medical Journal*, dealing with the pathology of infantile cerebral palsies, Dr. Sachs describes two necropsies which he has made in cases of this nature. The first case was that of a boy with a condition of old spastic hemiplegia, who died suddenly with symptoms of basal mischief. A large cyst was found accounting for the old condition, while internal to the cyst and at the base small-celled sarcomata were discovered as the cause of the sudden fatal termination. The second case was that of a one-year old child, cyanotic at birth, who suffered much from cramps, and whose mental development was poor. In the intervals of the cramps a spastic condition of the legs was evident. Examination revealed a condition of chronic meningo-encephalitis with secondary degenerations in the spinal cord. The origin of the cerebral condition Dr. Sachs ascribes to a widespread subpial hæmorrhage occurring during a protracted labour. As regards the question of operative procedure, he is of opinion that in cases of acquired and not too widespread cortical disease such interference may be useful, and that if it is to be carried out it should be done as quickly as possible on account of the rapidly occurring secondary degenerations. The difficulty in cases which clinically fall into this category is one of diagnosis, and even approximate certainty (a *sine qud non* if operation is to be proposed) can only be attained after careful and extensive observations, both clinical and pathological, have been made. To such observations Dr. Sachs' contribution is a valuable addition.

VACCINATION INJURIES.

A TYPICAL CASE of an allegation as to injury and death brought about by vaccination has occurred at Oldbury, where a coroner's inquest was held to inquire into the circumstances. The father held that the child had not been well since its vaccination, but the mother frankly admitted that before its death, the child's vaccinated arm had been well for no less a period than one month, and that for some weeks it had failed to take its nourishment properly, in consequence of which she put it out to nurse with a neighbour. The medical evidence was to the effect that the infant was not properly cared for, that it did not receive proper diet, and that it died in a convulsive fit. The suggestion of Mr. Grant, who represented anti-vaccination principles, was to the effect that vaccination must be regarded as an indirect cause of death. Indeed, it seems to be a creed of that party that if subsequently to vaccination any harm occurs, then *post hoc ergo propter hoc* must apply; but if any good comes whether by way of saving life from small-pox or otherwise, the results are quite accidental, and are not worth recording.

FOREIGN UNIVERSITY INTELLIGENCE.

Boston (Harvard).—Dr. R. H. Fitz has been appointed to the chair of Medicine.

Buda Pesth.—Dr. E. Schwimmer has been promoted to the chair of Dermatology.

Clausenburg.—Dr. Udransky of Buda-Pesth has been appointed to an Extraordinary Professorship of Physiology.

Gratz.—Dr. A. Elschnigg has been recognised as *privat-docent* in Ophthalmology.

Madrid.—Senor D. Dr. A. Redondo y Carranceja, Professor of Clinical Medicine in the Valladolid School, has been appointed to the chair of Medical Pathology.

Marburg.—Dr. F. Müller of Breslau has been appointed to the chair of Medicine.

Philadelphia (Jefferson College).—Dr. E. Montgomery has been appointed Professor of Clinical Gynæcology; Dr. F. X. Dercum, Professor of Nervous Diseases; Dr. E. Graham, Professor of Children's Diseases; Dr. H. W. Stelwagon, Professor of Dermatology; and Dr. W. M. Coplin, Assistant Professor of Hygiene.

Sienna.—Dr. Gius Sanarelli has been recognised as *privat docent* in Hygiene.

St. Petersburg (Military Medical Academy).—The number of candidates for the vacant chair of special pathology and therapeutics is very large, and includes Professor Dobroklonski of Warsaw, Professor Kurloff of Tomsk, Dr. Dokhman of Kazan, and a number of the present lecturers in the Academy.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Carl E. Lenz, consulting member of the Russian Medical Council at the age of seventy-one. He had travelled much and had lived for some time in Alaska. He was Russian delegate to the Cholera Conferences in Constantinople in 1865, and in Vienna in 1874. Amongst his literary works was an important abstract in Russian of Hirsch's Pathological History and Geography.—Dr. Ludwig Marovski, of Odessa, formerly professor in Kharkoff.

THE Select Committee of the House of Lords on the Metropolitan Hospitals resumed their work at Westminster on Thursday. The members present were Lord Sandhurst, Earl Cadogan, the Earl of Kimberley, the Earl of Arran, Earl Cathcart, Lord Thring, Lord Clifford of Chudleigh, and Lord Zouche of Haryngworth. As a matter of form, Lord Sandhurst was reappointed chairman of the committee The special purpose of the meeting was to hear evidence with regard to a uniform system of hospital accounts, but the expected witness did not attend, and their lordships employed the time considering their draft report.

AS Emeritus Professor of Clinical Surgery, Mr. Hutchinson, F.R.S., will deliver a course of six lectures on Thursdays, at 4 o'clock, in the clinical theatre at the London Hospital, commencing on Thursday, May 12th: (1) On Melanosis, May 12th; (2) on Operations for Cancer, May 19th; (3) on Different Forms of Chancre, May 26th; (4) on the Old and the Modern Treatment of Syphilis, June 2nd; (5) on the Nature of Eczema, June 9th; (6) on Arsenic, Mercury, and Opium, June 16th. Members of the profession will be admitted on presentation of their address cards.

A REUTER'S telegram from Cairo states: "Dr. Milton, chief medical officer of the native hospital here, is about to bring an action for libel against the newspaper *Le Bosphore*, on account of a violent article recently published in that journal attacking the English doctors practising here, and containing allegations regarding them which are alleged to be altogether unjust. Dr. Milton claims substantial damages."

DR. HOLMAN, the treasurer of the Royal Medical Benevolent College, will be presented with a testimonial on the occasion of his relinquishing practice at Reigate on Saturday, 14th inst., at 6.30 P.M., in the old Town-hall.

SIR WILLIAM ROBERTS, M.D., F.R.S., will deliver the Croonian Lectures, on the Chemistry and Therapeutics of Uric-acid Gravel and Gout, at the Royal College of Physicians, Pall Mall East, on June 14th, 16th, 21st, and 23rd, at 5 P.M.

THE next triennial prize of £300 under the will of the late Sir Astley P. Cooper, Bart., will be awarded for the best essay or treatise on the Anatomical Distribution of the Lymphatic Vessels and the Physical Forces concerned in the Movement of the Lymph.

THE annual dinner of old students of King's College, will be held on Monday, May 30th next, at the Freemasons' Tavern, Great Queen-street, Long Acre, when Dr. W. O. Priestley, of King's College Hospital, will preside.

BY the desire of the Prince and Princess of Wales, the addition to the St. Mary's Hospital, Paddington, is to be called the Clarence Memorial Wing.

THE half-yearly dinner of the Aberdeen University Club will take place at the Holborn Restaurant on Wednesday, May 18th.

A COURSE of lectures, free to practitioners and senior students, has been commenced at the National Orthopædic Hospital.

FIFTH REPORT OF THE ROYAL VACCINATION COMMISSION.

THE following is the text of the interim report which has been issued by the Royal Commissioners on Vaccination:—

We, the undersigned Commissioners appointed to inquire into the subject of vaccination, desire humbly to submit to your Majesty a further report of our proceedings.

In the first report which we submitted to your Majesty we stated that, considering it would contribute to clearness if the evidence on the several points submitted to us were kept distinct, we had decided to take evidence upon those questions as far as practicable in the following order:—

1. The historical and statistical case in favour of vaccination.
2. The arrangements made for vaccination under the existing law, and the mode in which the law is administered.
3. The case against vaccination, and especially against its continuing to be made compulsory.
4. The reply to these objections.
5. Any substitutes that can be suggested in place of vaccination for the purpose of preventing the spread of small-pox.
6. Any improvements that can be suggested in the present law or its administration for the purpose of removing objections to vaccination or making it more effective.

We have held ninety meetings and examined one hundred and thirty-five witnesses. The evidence we have taken hitherto has been mainly directed to the first three subdivisions of our inquiry, but we have not yet completed the evidence bearing upon any of them. It is obvious, therefore, that we are not in a position to express any opinion upon the main questions submitted to us for inquiry and report. But it has been suggested that, though unable to pronounce an opinion upon those questions, it might be in our power, without prejudice to the inquiry which is still in progress, to make recommendations with reference to certain subsidiary questions to which our attention has been called.

Having carefully considered this suggestion, we have come to the conclusion that we may properly make recommendations upon certain points to which we will now advert.

"Under the existing law every parent or person having the custody of a child who, without having reasonable excuse, neglects to take it to be vaccinated is rendered liable, on conviction, to a penalty not exceeding 20*s*. In addition to this, where the vaccination officer gives information to a justice of the peace that he has reason to believe that a child under fourteen years of age has not been successfully vaccinated, and that he has given notice to the parent or person having the custody of such child to procure its being vaccinated, and that this notice has been disregarded, the justice may make an order directing the child to be vaccinated within a certain time, and, if the order be not complied with, and no sufficient ground shown for non-compliance, the person on whom such order has been made is rendered liable to a penalty not exceeding 20*s*. And this enactment has been held by the Courts to warrant repeated orders in respect of the non-vaccination of a child, and the imposition of a penalty for the disobedience of each of such orders, notwithstanding that previous penalties have been inflicted.

"We think that the imposition of repeated penalties in respect of the non-vaccination of the same child should no longer be possible. In the year 1875 the Local Government Board wrote a letter to the guardians of Evesham Union, which was afterwards sent to many other boards of guardians and made public, pointing out that by Article 16 of the Board's General Order, 1874, it was provided that in any case in which a magistrate's order had been obtained and summary proceedings taken under Section 31 of the Vaccination Act, 1867, no further proceedings should be taken by the vaccination officer without the express instructions of the guardians. The letter further stated that the intention of this provision was that the guardians should carefully consider with regard to each individual case the effect which the continuance of the proceedings would be likely to have in promoting the vaccination of the individual child and in insuring the observance of the law in the union generally. Although the publication of this letter has, no doubt, had considerable effect in diminishing the number of cases in which repeated penalties have been inflicted, it has by no means put an end to them. We think that they should cease to be inflicted altogether. We have arrived at this conclusion quite independently of the question whether vaccination should continue to be compulsorily enforced. Whatever be the conclusion which we may have to submit to your Majesty upon this part of our inquiry, and even if it should ultimately appear that we are not able all to agree in the same conclusion, we have had no difficulty in agreeing upon the recommendation which we now submit.

"It is unnecessary to state at any length our reasons for the recommendation. Those who favour the view that vaccination ought not to be compulsory are naturally opposed to repeated convictions in respect of the failure to vaccinate a particular child, whilst those who incline to the opposite view believe that any advantage which may arise from the tendency of repeated convictions to increase the number of the vaccinated is more than counterbalanced by the resentment and active opposition to vaccination which they engender.

"Our attention has been directed to the treatment to which persons are subjected who have been committed to prison by reason of the non-payment of penalties imposed under the vaccination laws. It appears that in the case of one person so committed he was shortly after his commitment removed to the debtors' ward. The governor, apparently entertaining a doubt as to the mode in which the prisoner should be treated, applied to the Home Office for instructions. In reply to this application instructions were given 'that he should be treated as a simple imprisoned prisoner—that is to say, as a convicted criminal prisoner not sentenced to hard labour.' He was accordingly removed from the debtors' ward and returned to a cell, and received for the remainder of the term the treatment indicated in the instructions from the Home Office. The 38th section of the Prisons Act, 1877, empowers the Secretary of State to make rules with respect to the classification of prisoners imprisoned for non-compliance with the order of a justice or justices to pay a sum of money, or imprisoned in respect of the default of a distress to supply the sum of money adjudged to be paid by order of a justice or justices, so that such rules are in mitigation and not in increase of the effect of such imprisonment as regulated by the Prisons Act, 1865. We understand from answers given in Parliament that the Secretary of State for the Home Department is of opinion that this section does not enable him to provide that persons imprisoned under the Vaccination Act should not be subjected to the same treatment as criminals. We do not con-

sider that it is within our province to express any opinion upon this point, but we have no hesitation in saying that we think the power ought both to exist and to be exercised, and that persons imprisoned under the Vaccination Act should no longer be subjected to the same treatment as criminals. Many of those whose imprisonment arises from their contravention of the laws relating to vaccination regard the practice as likely to be injurious to the health of their children, and are well conducted and in other respects law-abiding citizens. Even those who consider that the course which such persons adopt is a mistaken one may nevertheless still be of opinion that they ought not during their imprisonment to be subjected to the treatment awarded to criminals, such a proceeding not being calculated to secure obedience to the law or to add to the number of vaccinated."

THE UNIVERSITY OF LONDON.

THE usual meeting of Convocation was held on Tuesday at 5 P.M., at the University Building in Burlington gardens. Mr. E. H. Busk, M.A., LL.B., was the only graduate nominated as chairman in succession to the late Dr. Wood, and was elected. The names of three persons were then voted for, who should be submitted to Her Majesty for the selection therefrom of a Fellow of the University. Mr. E. H. Busk obtained 781 votes, Mr. W. G. Lemon 143, and Mr. Talfourd Ely 136.

Dr. Napier presented the report of the annual committee, and with Dr. Baines moved a vote of sympathy with the family of the late Dr. Wood. Dr. W. J. Collins moved the next resolution as follows: "That the annual committee be requested to represent the views and guard the interests of Convocation generally in all matters connected with the proposed Royal Commission, and any scheme which may be submitted to it, and that for this purpose they be empowered to confer and to take joint action with the Senate, and to act otherwise as may seem expedient."

Sir Albert Rollit preferred a special committee; but, after some discussion, the original proposal was carried. The advisability of instituting degrees in languages was again referred to the annual committee.

Dr. O'Reilly moved for precedence for the following resolution, which was carried, and copies are to be forwarded to the First Lord of the Treasury, the Home Secretary, and the Member of Parliament for the University: "That this House learns with surprise and regret that the new Royal Commission on a Teaching University for London includes no member who can be regarded as representative of the Convocation of the London University, a body consisting of more than 3000 graduates deeply interested in the future of University education in the metropolis."

Mr. Sully and Mrs. Bryant, D.Sc., urged the institution of a high degree in connexion with the scientific study of education, but this was lost by the casting vote of the chairman. The annual committee were balloted for, and the House was shortly afterwards counted out.

The proceedings on the presentation day were of the usual character. Lord Derby made a graceful chairman, and was most complimentary in his felicitations to the graduates and undergraduates who were presented for their medals and certificates.

LONDON COUNTY COUNCIL.

THE Chairman of the Public Health Committee of the London County Council has issued a memorandum in explanation of the amendment required in the law to prevent the future erection of domestic dwellings in London, whether on new foundations or in substitution for old buildings, except in accordance with regulations securing an adequate amount of open space both in front and rear. The object of the memorandum is to indicate (1) the existing law on the subject as affecting domestic buildings in London; (2) the law as affecting those in the provinces and the manner in which effect has been given to it; (3) the amendment of the law required for London. Dealing with the third head the memorandum states that:—

The Royal Commissioners on the Housing of the Working Classes, in their report of 1885, dealt with the subject. The Commissioners, after stating that no attempt had hitherto been made to control the height of buildings in the metropolis in relation to the open space provided, and giving it as their opinion that the existing regulations as to such open space were not sufficient or satisfactory, made the following recommendations, subject to limitations which might be found necessary to prevent undue sacrifice of property in individual cases:—1. That upon the lines of the existing enactments in the Acts of 1862 and 1878, rules of more general application be framed to control the height of buildings in relation to the open space which should be required to be provided in front of the buildings, either in the form of land exclusively belonging to each building and kept free from erections, in the form of an adjoining street. 2. That in the rear of every new dwelling house or other building, and whether in old or in new streets, there be provided a proportionate extent of space exclusively belonging to the dwelling house or building; that this space be free from erections from the ground level upwards; that it extend laterally throughout the entire width of the dwelling house or building; that for the distance across the space from the building to the boundary of adjoining premises a minimum be prescribed; and that this minimum increase with the height of the dwelling house of building. As will be observed, the model by-laws proceed upon the lines of both these recommendations with regard to buildings outside London. The long-wished-for opportunity of amending the law with regard to the Metropolis is now offered by the pending consolidation of the Building Acts.

The late Building Act Committee suggested that the amendment should be effected by the adoption of much the same rule as that adopted by Liverpool, so far as the space in rear of dwellings is concerned, leaving untouched the question of the open space in front, but with the proviso that every owner of an existing house should have reserved to him the full right to rebuild his house on the old foundations, provided the dimensions are not altered. If an amendment of the law goes no further than this, it will hardly effect much; 18 feet streets will still remain 18 feet streets, and it will still be possible for houses fronting on them to be erected up to 90 feet. That to give full effect to both the recommendations of the Royal Commissioners must mean a sacrifice of property, and of very valuable property too, is of course evident; but land in the heart of Manchester and Liverpool is probably as valuable as land in the congested districts of London, and if the sacrifice is called for in those cities, it is surely equally called for in London; moreover, the principle of calling upon owners of house property in certain circumstances to make sacrifices for the general welfare of the community is admitted—e.g., the compulsory setting back on taking down and rebuilding to the general line of buildings when such has been once fixed, which setting back has to be done without compensation, that cases of exceptional hardship would inevitably arise if the Liverpool rules were applied to London goes without saying; for example, where a house is pulled down and the building site is of insufficient extent to allow of any rebuilding in face of the new regulation; but that is not sufficient excuse for longer delaying the only possible remedy against the evils, which, bad as they are now, may become far worse as the sanitary authorities and the Council enforce the Housing and Public Health Acts by insisting on the closing and demolition of insanitary houses, and even if compensation in individual cases should be unavoidable, this would be a cheaper arrangement for the ratepayers than the extravagant clearance schemes which must otherwise be continuously undertaken if London is to be a healthy city. Assuming the principles involved in the model by-laws to be applicable to London, it would doubtless be desirable in calculating the open space in front of new houses that the measure should be taken from the centre of the street, and that the provision so far should apply to all classes of buildings, and not be confined to domestic ones; but what the distance across should be, and whether the provision as to space in the rear is sufficient to put a reasonable limit on the actual height of the house itself, are matters which require to be considered by experts. Meanwhile the most reasonable suggestion which could be put forward at the present juncture would probably be the introduction of a clause in the proposed amendment Bill giving similar power to the Council to make by-laws dealing with the matter, subject to confirmation by the Local Government Board, to that possessed by urban authorities outside London.

April 30th, 1892. R. MELVILL BEACHCROFT.

THE BELFAST LUNATIC ASYLUM BILL.

THIS Bill has been before a Select Committee of the House of Commons, consisting of the Right Hon. G. J. Shaw-Lefevre, Mr. A. Elliot, Sir Edward Harland, Mr. Hinckes, Mr. Knox, Mr. Sexton, and Mr. T. W. Russell, on Mondays and Thursdays during the past three weeks. The existing Belfast lunacy district includes Belfast city, with a population of 260,000, and the county of Antrim, which, excluding Belfast, has a population of nearly 200,000. In the whole district there are about 250 idiots and imbeciles, and 1200 other insane persons, who for practical purposes are regarded as pauper lunatics. The only available asylum accommodation hitherto provided for this large and afflicted class has been the Belfast Asylum, which nominally accommodates 550 patients, and which for some time past has been so overcrowded that in at least one division the patients are obliged to sleep in the corridors. In addition to the patients

actually inhabiting the asylum, 100 lunatics have been transferred thence to Ballymena Workhouse under the provisions of Sec. 9, 38 and 39 Vict., cap. 67, the names of the lunatics continuing on the asylum books, and the governors still receiving the treasury capitation grant of 4s. a week towards their maintenance. The remaining 800 lunatics and idiots are scattered at large throughout the district or are located in the different workhouses, where they are detained without legal sanction, and where their condition and treatment are generally extremely unsatisfactory. It is now proposed that the present Belfast Asylum should be devoted exclusively to city patients, and that a new, and in every respect modern asylum, should be erected for the county patients at Holywell, close to the town of Antrim, where a beautiful site overlooking Lough Neagh has been acquired for the purpose by the board of control. It was found, however, that this scheme could not be carried out without legislation, inasmuch as Belfast, although the city of a county by charter, has no separate taxing and presenting powers, and that therefore the Lord Lieutenant had no power to separate it from the rest of the county of Antrim and constitute it a separate lunacy district. The Bill conferring on the corporation of Belfast the financial powers to maintain a city asylum is opposed by certain of the Roman Catholic inhabitants of Belfast, on the grounds that the change proposed would be injurious to the ratepayers, and that no fresh or further powers should be conferred on the corporation until the city has been divided into a larger number of wards than five, so that the Roman Catholic minority might have some chance of obtaining representation on the city council. The Parliamentary Committee has taken a large amount of evidence, and has examined among others Dr. Alex. Merrick, the resident medical superintendent of Belfast Asylum, and Dr. Plunkett O'Farrell, one of Her Majesty's inspectors of lunatics and a commissioner of control for the erection of lunatic asylums in Ireland. The opponents of the Bill admit the necessity for further lunacy accommodation, but they contend (1) that it would be better and cheaper to have only one board of visitors for the management of the two asylums, and (2) that it would be desirable to be able to classify the patients between the city and county asylums; and the medical evidence has been chiefly directed to these two points. The principle of having a single board of visitors or governors for two distinct institutions is not in the abstract desirable, and in the particular instance of Belfast is certainly objectionable. The single board of visitors would be composed of somewhat irreconcilable elements; the town members would come into occasional conflict with the country members. The two institutions would differ in many ways, each would have its special wants and perhaps its special faults; but the members of the single boards, some of whom would be more interested in one asylum than the other, would not be impartial judges. Moreover, the delicate question of proportionate representation would have to be approached, and the giving of a majority to one or other element would be certainly resented.

In England it has been found absolutely essential to manage each lunatic asylum by its own subcommittee, or board of visitors, and comparatively small towns like Ipswich, Derby, Exeter, Portsmouth, &c., have now their own small "borough" asylums, and have no relations with the large county asylums. As regards the second point, the attempt to classify patients by their chances of recovery has failed everywhere it has been tried. When the third Middlesex asylum was built at Banstead it was intended that it should provide only for chronic and so-called "incurable" cases. It was very soon found impossible to maintain or work this plan, and so it was abandoned, and no attempt has been made to repeat the experiment. On the contrary, the great new asylum at Claybury is being specially erected for the accommodation of both classes, "curable" and "incurable." In Germany a few generations ago it was a favourite idea to divide asylums into "cure institutions" (Heil-Anstalten) and "care institutions" (Pflege-Anstalten). But practically it was found that this system would not work, and the majority of the asylums are now "cure and care institutions" (Heil- und Pflege-Anstalten).

It is no doubt occasionally desirable, on medical grounds, to transfer borough or city patients to the country. This advantage could be gained by a friendly arrangement between the two boards of visitors of the Belfast and the new Antrim Asylum, or by the far better plan, now adopted by nearly all the English lunacy hospitals, of building a small seaside convalescent asylum for the city patients, where no doubt they would have a far better chance of recovering and regaining mental stability than in the best-managed county or district asylum.

THE GENERAL PRACTITIONERS' ALLIANCE.

THE General Practitioners' Alliance having represented to the Privy Council the desirability of appointing representatives of the medical profession not connected with the governing bodies of existing corporations to serve on the Royal Commission appointed to inquire into the subject of the Gresham University, a reply to the following effect has been received. The Lord President, in the communication, states that "it is quite impossible for his lordship to receive deputations upon the composition of the Royal Commission. The names have been submitted to, and approved of by, Her Majesty, and the numbers are already large, medicine being strongly represented. Evidence can, of course, be given upon any special points, and the members of the Commission, other than the medical members, can judge of the value of the evidence and give effect to it. The Lord President regrets that he is unable to accede to the resolution of the General Practitioners' Alliance, as other bodies who have sought for additions to the Royal Commission would claim to be heard in person."

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6718 births and 3841 deaths were registered during the week ending May 7th. The annual rate of mortality in these towns, which had been 21·8 and 20·8 per 1000 in the preceding two weeks, further declined last week to 19·7. In London the rate was 18·9 per 1000, while it averaged 20·2 in the thirty-two provincial towns. The lowest rates in these towns were 14·3 in Halifax, 14·9 in Cardiff, 15·7 in Norwich and in Huddersfield, and 15·0 in Nottingham; the highest rates were 23·9 in Preston, 24·1 in Oldham, 24·2 in Liverpool, and 28·3 in Sunderland. The 3841 deaths included 541 which were referred to the principal zymotic diseases, against 541 and 527 in the preceding two weeks; of these, 237 resulted from measles, 152 from whooping-cough, 43 from diphtheria, 42 from scarlet fever, 41 from diarrhœa, 25 from "fever" (principally enteric), and 1 from small-pox. No fatal case of any of these diseases occurred last week in Norwich; in the other towns they caused the lowest rates in Hull, Nottingham, Derby, and Birkenhead, and the highest rates in Sheffield, Salford, Leicester, and Sunderland. The greatest mortality from measles occurred in Birmingham, Sunderland, Liverpool, London, Leicester, and Sheffield; from whooping-cough in Manchester, Croydon, Bristol, Bolton, and Sunderland; and from diarrhœa in Salford and Preston. The mortality from scarlet fever and from "fever" showed no marked excess in any of the thirty-three large towns. The 43 deaths from diphtheria included 31 in London, 4 in Manchester, and 2 in Salford. One fatal case of small-pox was registered in London, but not one in any of the thirty-two provincial towns; 47 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 12 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1484, against 1400 and 1408 on the preceding two Saturdays; 200 new cases were admitted during the week, against 219 and 177 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 389 and 306 in the preceding two weeks, further declined to 297 last week, and were 61 below the corrected average. The causes of 72, or 1·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Norwich,

Bolton, Hull, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Blackburn, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 24·1 to 21·3 per 1000 in the preceding four weeks, was 21·4 during the week ending May 7th, and exceeded by 1·7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17·1 in Leith and 17·3 in Edinburgh to 23·7 in Glasgow and 28·9 in Greenock. The 596 deaths in these towns included 30 which were referred to whooping-cough, 22 to measles, 5 to scarlet fever, 4 to diarrhœa, 3 to "fever," 1 to diphtheria, and not one to small-pox. In all, 65 deaths resulted from these principal zymotic diseases, against 63 and 70 in the preceding two weeks. These 65 deaths were equal to an annual rate of 2·3 per 1000, which was 0·5 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 22 and 26 in the preceding two weeks, further rose last week to 30, of which 24 occurred in Glasgow and 2 each in Edinburgh, Dundee, and Aberdeen. The deaths referred to measles, which had been 15 and 18 in the previous two weeks, further increased to 22 last week, of which 21 were recorded in Glasgow. The 5 fatal cases of scarlet fever also showed a slight further increase upon recent weekly numbers, and included 3 in Glasgow. The 4 deaths from diarrhœa were considerably below those recorded in any recent week, and the fatality of diphtheria and of "fever" also showed a decline. The deaths referred to diseases of the respiratory organs in these towns, which had been 163 and 139 in the preceding two weeks, further declined last week to 126, and were 31 below the number in the corresponding week of last year. The causes of 58, or nearly 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding three weeks from 30·6 and 43·9 per 1000, declined again to 33·0 during the week ending May 7th. During the first five weeks of the current quarter the death-rate in the city averaged 35·3 per 1000, the rate for the same period being 20·3 in London and 19·5 in Edinburgh. The 221 deaths in Dublin during the week under notice showed a decline of 73 from the exceptionally high number in the preceding week, and included 40 which were referred to measles, 4 to whooping-cough, 2 to diarrhœa, 1 to diphtheria, and not one either to small-pox, scarlet fever, or "fever." In all, 47 deaths resulted from these principal zymotic diseases, equal to an annual rate of 7·0 per 1000, the zymotic death-rate during the same period being only 3·6 in London and 2·8 in Edinburgh. The fatal cases of measles, which had been 33 and 20 in the preceding two weeks, rose again to 40 last week, and exceeded the number recorded within the city in any week since January, 1882. The deaths referred to whooping-cough, which had increased in the previous three weeks from 5 to 11, declined again to 4 last week. The 221 deaths registered in Dublin last week included 39 of infants under one year of age, and 37 of persons aged upwards of sixty years; the deaths of infants showed an increase, while those of elderly persons were considerably below those recorded in any recent week. Three inquest cases and 5 deaths from violence were registered; and 65, or nearly one-third, of the deaths occurred in public institutions. The causes of 20, or more than 9 per cent., of the deaths in the city last week were not certified.

CALCUTTA VITAL STATISTICS.

We learn from the report of Dr. W. J. Simpson, health officer for Calcutta, on the vital statistics of that city and its amalgamated area of suburbs, that the total number of births registered in Calcutta in January last was 787, in the annual ratio of 20·2 per 1000 of population. Of the 787 births, 405 were males and 382 females. The decennial mean was 683. The total number of deaths, exclusive of still-births, registered in January was 1302, against 1380 in the preceding month, showing an annual ratio of 33·4, against 35·5 per 1000. The proportion of male to female deaths was as 140 to 100. The monthly total exceeds all the corresponding figures of the past decade, excepting 1883, and also exceeds the decennial mean by 137. There were 57 deaths from cholera, against 98 in the preceding month. The number is less than all the corresponding figures for the last ten years, excepting 1884, and is also less than the average of the decade. There was only one death from small-pox registered during the month. The deaths from fevers amounted to 497, against 536 in the previous month. The total exceeds all the corresponding numbers for the past ten years, and also surpasses the decennial mean by 154. Tetanus among infants reached, as usual, a high figure. There were 46 deaths from tetanus, against 47 in the previous month. Of these, 39 were under one year of age. The mortality of infants under one year of age, reckoned on estimated births, was 287·2, against 306·0 in the preceding month per 1000 of population per annum. In the amalgamated area of the suburbs there were 404 births registered in January, giving an annual ratio of 22·5 per 1000. Of these, 223 were male births and 181 female. The total number of deaths registered in January was 828, in the annual ratio of 46·1 per 1000 of population. Of these deaths there were 35 from cholera, 346 from fevers, 148 from bowel complaints, 46 from tetanus, 6 from injuries, and 247 from other causes.

THE SERVICES.

THE REPORT OF LORD WANTAGE'S COMMITTEE.

THE absence of Mr. Stanhope from the House of Commons owing to ill-health will, in all probability, interpose an obstacle to the intended debate on the recommendations of Lord Wantage's Committee on the terms and conditions of service in the Army. This is to be regretted, for the subject is one which needs threshing out in the House of Commons; but neither the Government nor the opposition will, we fancy, be sorry to escape declaring their future action in difficult matters involving an increased expenditure amounting altogether to some two millions a year. Sooner or later the subject must, however, be taken in hand. The soldier regards the present system of compulsory stoppages, not due to negligence or misconduct on his part, as a great grievance. He thinks their imposition opposed to the representations made to him on enlistment, and considers that he should be housed, clothed, and fed at the cost of the State, and able to count on some fixed sum in the way of daily pay to spend as he likes—not a very unreasonable way of looking at it!

DISTINGUISHED TRAVELLERS.

Two officers, one of whom is a medical officer, have recently accomplished a feat in the way of travelling which speaks well for their enterprising spirit and powers of endurance. It is stated by a correspondent that Captain Bower, of the 17th Bengal Cavalry, and Surgeon Thorold, of the Indian Medical Service, had passed through Shanghai. The names of these officers will, we believe, be added to the list of distinguished British travellers. They journeyed through Thibet by the longest route that can be taken through that country. They passed from the Cashmere frontier in the north-west to the Chinese province of Szechnen, which adjoins the south-eastern border of the territories of the Delai Lama. They spent upwards of ten months in Thibet, and a great part of their journey lay through a series of elevated table lands, seldom lower than 15,000 feet above the sea level. No foreign travellers have, it is alleged, previously followed the same route, and we may consequently look forward to an interesting record of their experiences.

THE LATE RISING IN NORTH LUSHAI.

We learn that the medical officer whose exhibition of bravery and coolness, under trying circumstances, in connexion with the late expedition in North Lushai land, was mentioned in the reports of the campaign, is not Surgeon-Captain C. H. Melville, of the Army Medical Staff, but Surgeon-Captain Henry Bruce Melville, of the Indian Medical Service, who is stationed at Fort Aijal, North Lushai, in medical charge of the frontier police, and is Civil Surgeon of the Lushai Hills.

INDIAN MEDICAL SERVICE.

It was announced that Surgeon-Major Coates, the Junior Civil Surgeon at Simla, had been appointed Civil Surgeon at Lahore, Surgeon Cunningham succeeding him; but according to the latest arrangement it appears that Surgeon-Major Coates will remain at Simla, and not go to Lahore as stated.

Surgeon-Major C. F. Willis, I.M.S., 9th Bombay Infantry, who has been officiating in medical charge of the 21st Bombay Infantry during the absence of Surgeon-Major Burroughs, I.M.S., departed for Mhow on the 13th ult., to rejoin his regiment, on the arrival of the latter officer from leave in England.

Surgeon-Captain A. Street, I.M.S., on general duty, Poona, has been appointed to officiate in medical charge, 26th Regiment Bombay Infantry, vice Surgeon-Captain H. Herbert, I.M.S., transferred to the Civil Department.

The services of Surgeon-Captain H. Herbert, F.R.C.S., I.M.S., have been placed at the disposal of Government for employment in the Civil Department.

Surgeon-Captain Baman Das Basu has been appointed to act as Civil Surgeon, Jacobabad, with effect from the 22nd ult., in addition to his other duties.

Surgeon-Captain J. Crimmin, V.C., I.M.S., has been appointed to act as Port Surgeon, Aden, during the absence of Surgeon-Major C. Monks, I.M.S., or until further orders; Surgeon-Captain A. F. Cleveland, I.M.S., holding charge, pending the arrival of Surgeon-Captain Crimmin.

Surgeon-Captain H. Herbert, F.R.C.S., I.M.S., acts as Second Surgeon, Jamsetjee Jejeebhoy Hospital, during the deputation of Surgeon-Major W. K. Hatch, to act as Senior Medical Officer in charge, Jamsetjee Jejeebhoy Hospital, and Senior Surgeon, Jamsetjee Jejeebhoy Hospital.

Surgeon-Major Robertson and his party of frontier tribesmen have passed through Lahore on their way home. They had been a little depressed by the sudden death from cholera of the Assistant Medical Officer to the party.

Surgeon-Lieutenant-Colonel H. J. Linton, I.M.S. (26th P.N.I.), died at Peshawur on the 4th ult. He joined the Indian Medical Service in 1869, served in the Afghan War of 1878–80, and took part in the second expedition into Bazar Valley and in the advance to the relief of Cabul under Brigade-General C. Gough (mentioned in despatches); accompanied Sir Frederick Roberts in the march to Candahar, and was present at the battle of Candahar (mentioned in despatches, medal with two clasps and bronze decoration).

ARMY MEDICAL STAFF.—Surgeon-Major F. W. Trevor and Surgeon-Captain C. J. W. Tatham have been ordered to Woolwich for duty. — Brigade-Surgeon-Lieutenant-Colonel J. B. Kelly, in medical charge of the Station Hospital at Belgaum, has been appointed to the medical charge of South Station Hospital, Bangalore. — Surgeon-Lieutenant-Colonel A. L. Brown, in charge of South Station Hospital, Bangalore, has been transferred to the charge of the Station Hospital at Belgaum.—Surgeon-Captain W. J. Crofton has been placed on temporary half-pay on account of ill-health.—Surgeon-Colonel Wm. Collis to be Surgeon-Major-General, vice A. M. Tippetts (retired), Brigade-Surgeon-Lieutenant-Colonel Francis Henry Welch, F.R.C.S. Eng., to be Surgeon-Colonel, vice W. Collis, and Surgeon-Lieutenant-Colonel Henry Comerford, M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice F. H. Welch (all dated April 5th, 1892).

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon-Lieutenant-Colonel William Warman Coleman, having resigned his Volunteer appointment, ceases to be an Officer of the Army Medical Reserve of Officers (dated May 11th, 1892).

MILITIA MEDICAL STAFF.—Surgeon-Lieutenant-Colonel R. J. Magee, 5th Battalion, the Royal Irish Regiment, whose resignation was notified in the *London Gazette* of Feb. 26th, is permitted to retain his rank, and to wear the prescribed uniform on his retirement (dated Feb. 27th, 1892).

YEOMANRY CAVALRY. — Royal Wiltshire (Prince of Wales's Own Royal Regiment): Geo. Thelwall Kinderaley Maurice, Gent., to be Surgeon-Lieutenant (extra), under paragraph 33 (*a*) Yeomanry Cavalry Regulations, 1889 (dated May 9th, 1892).

NAVAL MEDICAL SERVICE.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Inspector-General of Hospitals and Fleets Doyle Money Shaw, C.B., has been placed on the Retired List of his rank at his own request (dated April 27th, 1892).—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Inspector-General of Hospitals and Fleets John Fisher has been placed on the Retired List at his own request. Surgeon and Agent: John G. Wilson, M.B., at Porlock and Minehead (dated May 11th, 1892).

VOLUNTEER CORPS.—*Artillery:* 1st Aberdeenshire: Surgeon-Major J. Rodger, M.D., to be Surgeon-Lieutenant-Colonel (dated May 11th, 1892). — *Rifle:* 4th Volunteer Battalion, the Cheshire Regiment: Surgeon-Captain W. Bale to be Surgeon-Major, to resign his commission, to be granted permission to retain his rank, and to continue to wear the uniform of the battalion on his retirement; and Hyde Marriott, M.B., to be Surgeon-Lieutenant (both dated May 11th, 1892).—1st (City of Bristol) Volunteer Battalion, the Gloucestershire Regiment: Surgeon-Lieutenant A. W. Prichard to be Surgeon-Captain (dated May 11th, 1892).—1st Volunteer Battalion, the East Lancashire Regiment: Surgeon-Lieutenant W. Wallers resigns his commission (dated May 11th, 1892) —1st Volunteer Battalion, the Manchester Regiment: William Fitzwilliam O'Grady, Gent., to be Surgeon-Lieutenant (dated May 11th, 1892).

Correspondence.

"Audi alteram partem."

THE OATH OF HIPPOCRATES.

To the Editors of THE LANCET.

SIRS,—The authority of THE LANCET is deservedly so great on all matters pertaining to the history, theory, and practice of medicine, that its opinion may generally be accepted without scrutiny or challenge. Nevertheless, I venture to think that one of the inferences it draws from the Hippocratic Oath is not, historically or logically, well founded.

In an interesting annotation entitled "The Oath of Hippocrates," it is stated: "An expressed objection to the performance of lithotomy affords an early sign of the deepening cleavage between the provinces of the physician and the surgeon" (p. 1039). The Hippocratic phrase, "I will not cut any one suffering from stone" (*οὐ τεμέω δὲ οὐδὲ μὴν λιθιῶντας*), has confessedly puzzled and perplexed most commentators, and many conjectures have been hazarded as to what it does mean, and many hypothetical emendations of the text have been proposed in order to make the meaning clearer or more intelligible. It is no part of my present purpose to discuss these conjectures and emendations or to attempt any elucidation of the text. I merely submit that, whether it was intended to proscribe the operation of cutting for vesical calculus or not, or whether some other operation was referred to (e.g., castration as some suppose) the interdiction does not afford any evidence of a "cleavage between the provinces of the physician and the surgeon." Respecting this particular assumption, Littré emphatically declares "une pareille opinion ne peut soutenir le moindre examen,"[1] and he observes that the Hippocratists performed all kinds of operations, severe as well as slight.

The context, and indeed the whole tenour of the Oath, shows that whatever may have been the grounds for proscribing this operation, they were of an ethical or *moral* nature, and not purely *technical*. There is nothing in the Hippocratic writings, or in the works of the other ancient Greek and Roman medical authors, to indicate why this operation of cutting for stone was specially and *exclusively* prohibited. No other operation in surgery is proscribed; all the other procedures mentioned in the Oath only to be condemned are obviously criminal or offensive and immoral.

I am, Sirs, yours faithfully,

Harley-street, W., May 10th, 1892. JOHN TWEEDY.

[1] Œuvres d'Hippocrate, tom. iv., p. 617

PRESENTATION TO SIR GEORGE BUCHANAN, F.R.S.

To the Editors of THE LANCET.

SIRS,—As you are doubtless aware Sir George Buchanan has lately resigned the post of Medical Officer to the Local Government Board. A committee has been formed with a view to forwarding a movement for enabling those interested in public health throughout the country to give expression to the high estimation in which they hold the important work which Sir George Buchanan has done, and for affording some opportunity for the recognition of his conspicuous services in the cause of preventive medicine. Under these circumstances it has been decided to open a subscription list (not to exceed two guineas from each contributor) with a view to presenting to Sir George Buchanan some permanent memento of the esteem in which he and his work are held. The Council of the Society of Medical Officers of Health has expressed a desire to be associated with the committee in inviting subscriptions to the fund.

We are, Sirs, faithfully yours,

J. S. BRISTOWE, Hon. Treasurer.
W. H. HAMER,[1] Ladywell, 69, Dartmouth-park-hill, N.W. } Hon. Secs.
J. C. THRESH,[1] The Limes, Chelmsford, Essex. }

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* Representing the Society of Medical Officers of Health.

[1] To whom contributions may be sent.

THE PHYSIOLOGY OF DREAMS.

To the Editors of THE LANCET.

SIRS,—I have read with great interest your annotation on the Physiology of Dreams, but unfortunately did not hear the lecture on this subject by Dr. Richardson, on which your comments are founded. I am unacquainted with the exact views of the lecturer on the subject, but it is generally held that a dream is simply the working of the brain during sleep, when all surrounding objects are removed from the consciousness, so that it seems for the time a reality, and all the circumstances connected with it so vivid in the memory that they can be realised when the waking hour arrives. The relating of this dream to another person may occupy some time, so numerous are the incidents, and yet the sleep during which it occurred may be little more than momentary, and herein lies one of the first fallacies with respect to the theory of dreaming. A friend informs me that he has fallen asleep in his carriage, had a dream, and suddenly awoke, when he has found he is not out of the street where his slumber began. For this reason and others which I shall mention it is evident that a dream is nothing more than a mental picture, just as happens when one sits drowsing over the fire in a reverie, and conjures up to the mind's eye some distant spot where one has once been, and with it, perhaps, some well-marked scene, until one is living again in the place as if it were a reality. If true sleep should occur, and so all surroundings cut off, the picture becomes still more real, we become a part of it, see the people move about and hear the music play. I believe the dreamer does nothing more than this; he has a picture before him such as we may see in our National Gallery in "The South Sea Bubble" or "The Derby Day." If he had witnessed these scenes himself only for a minute in a rapid drive through the city or on Epsom Downs it would take a long time to relate all the particulars of the pictures implanted on his mental vision. So I take it in a dream; there is a mental picture of this kind, but the narrator does not describe it as such, but relates a number of incidents occurring over a lengthened period of time, among which are conversations about the names and character of people of whom the dreamer obtains information, there is beautiful music, there is an improvisatore who recites, and various foreign languages are spoken. The narrator of the dream may relate even how he is asked a riddle, and giving it up often obtains the answer from the interrupter; or tell again Boswell's story of Dr. Johnson, how a controversy takes place in which the dreamer has the worst of it. In this case Boswell reminds Johnson that he personified both parties. This, however, afforded no explanation of the fact that in acting the part of two people he was quite unconscious of being the same individual. I take it that it is quite impossible when a person acts the part of two individuals in a dialogue, that he can for a moment forget his personality. I cannot conceive of the possibility of this, nor can I conceive how, during sleep, the mind could pass through such different stages; but this many persons think they do in a dream.

There is one obvious case which shows the fallacy of the ordinary opinion as to the nature of dreams; it is one which sorely perplexed one of my students. He told me that he had been for a short time to a school in Germany, but not long enough to acquire a mastery of the language, whilst of course his master spoke it perfectly. He had often in his dreams returned to his school, when in conversation with his master he spoke only his broken German, whilst his master made use of the best idiom. It greatly puzzled my friend, who, knowing that the dream originated in his own brain, how in his sleep he could be acquainted with the perfect foreign language. I asked him to repeat something which the master had said. This he failed to do, and this is always the case with the relators of dreams; they forget the foreign language spoken, they forget the music they heard, they forget the poem they heard recited, they remember only some triviality or absurd expression which they put into somebody's mouth. Nothing is too extravagant for a dreamer to say has occurred in his dream, and yet he fully believes that his own brain has concocted it. Although he knows not a note of music, he says, in fact, that his brain has produced the most wonderful melodies; although he knows no foreign language, his brain has developed people who spoke them; although he never wrote a verse, his brain during sleep conceived of a lady who recited a charming poem. The absurdity of this common opinion is almost too obvious to be mentioned, and yet there are persons who gravely speak of these things occurring during sleep. The fact of their never remembering a word of these performances when awake does not altogether convince them as it ought, that they never could have had such dreams as they describe. What is usually said is that the mind during sleep conjures up a variety of scenes and performs, as it were, itself the various parts of the different actors. This is what I deny; the student in his sleep did not talk inferior German, and his master the perfect language. All he did was to picture to himself two people with these different characteristics. He never in his dream talked to his master or his master to him. This is simply the way he describes the picture in his waking hours.

In endeavouring to study the physiology of dreams, and the various causes which give rise to them, the first thing to realise is that the whole thing is a delusion; to know that the narrator who says he has been dreaming all night long of certain incidents as if it was a continuous story is deceiving himself; he has merely had a strong mental vision in which the characters have had more reality than in any picture of a scene he can call up in his waking hours. All the living action is a subsequent interpretation. I am not denying the fact of "unconscious cerebration," or that the brain may not solve problems during sleep to be made use of when the subject awakes; nor would I deny that poets or musicians may have shown their respective powers during sleeping hours. A musician may in his fancy have seen the Devil at the foot of his bed performing a tarantella which he wrote down in the morning; or Coleridge might, in a dreamy state at night, compose his "Kubla Khan," but the poem he wrote during his waking hours was the offspring of his "vision in a dream." One difficulty in obtaining a clear idea of the dreaming process appertains to the difficulty which exists, and, perhaps, always will exist, in the explanation of all mental phenomena, and that is, that in operations of the brain and mind we are obliged, from the necessity of our existence, to put the "ego" anterior to all mental processes.

I am, Sirs, yours faithfully,

Grosvenor-street, May 7th, 1892. SAMUEL WILKS.

PSILOSIS.

To the Editors of THE LANCET.

SIRS,—In your observations in THE LANCET of April 30th on Dr. Thin's paper on Psilosis, read recently at the Royal Medical and Chirurgical Society, you remark that his suggestion that the colouring matter of the fæces in these is destroyed low down in the intestinal canal by bacterial action, and, until some other agency has been discovered or this theory shown to be untenable, we must conclude that the views hitherto held as regards the white stools, although probably correct in the majority of cases, are not complete, and that further investigation is necessary before the matter can be satisfactorily settled. My attention was drawn to this question in Jamaica thirty years ago, when studying the character of yellow fever.[1] In that disease, on the fourth and fifth days, the stools are either nearly colourless, or contain merely a small quantity of fetid mucus with more or less biliary matter, but altogether without the appearance of the natural healthy evacuation, and at the same time there is much oppression, great irritability of stomach, and threatening of black vomit. At this stage a brown feculent evacuation of healthy appearance frequently occurs, when the unfavourable symptoms disappear as if by magic, and the convalescence is generally rapid. Here the brown evacuation is evidently a critical discharge of a most important description, and though it may contain bile that is not the cause of its colour, and the presence of such bile does not seem to explain its wonderful influence in removing the fever at its most threatening period.

The general belief of the medical profession is undoubtedly the old one, that pale stools are the result of either the non-secretion of bile, or its retention in the liver itself by obstructed ducts; but the brown colour of the fæces is not due to any modification of that of bile, but to a secretion that is not met with above the cæcum, and is to be found in it in cells impregnated with it, these cells being generally diffused through its more or less fluid contents, and, in favourable specimens, many of them may be found in tube casts, and evidently secreted by the glands in the lining membrane of the organ itself, as the gastric juice is secreted in those of the stomach. It may be asked, if non-secretion of bile or its retention in the liver be relieved by mercurials, and the proper colour of the feculent discharges return after their use, does not this prove the view here advocated to be erroneous? This is not so, however, for the Commission at Edinburgh, which examined, a good many years ago, how far mercurials increased the biliary secretion, showed that they did not do so; yet the action of calomel in moderate quantities on the cæcum and colon is to deepen the brown colour, and to increase these secretions, thereby augmenting their eliminative action, and so relieving any organ behind them from congestion or other disturbance of function which it is possible for an increase of the natural eliminatory process to afford. I am, Sirs, yours faithfully,

ROBERT LAWSON,
London, May 6th, 1892. Inspector-General of Hospitals (retired).

[1] British and Foreign Medico-Chirurgical Review, vol. xxviii., p. 483, and vol. xxix., p. 481.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—The Association of Members of the College of Surgeons has already suffered enough for having taken Mr. Lawson Tait's advice in reference to the recent action (Steele *v.* Savory) without having further thrust upon it the responsibility of depriving the College of that gentleman's valuable services upon the Council. The Committee of the Association, desiring to ascertain the extent of their liability as soon as possible, passed a resolution to the effect that, the action having now terminated, the services of the solicitor would no longer be required, and requesting him to send in his account. One of the secretaries, who was brother to the solicitor, took offence at this, and resigned; the other then did likewise, on the ground that he had not for a long time undertaken any of the active duties of the office. Such is the sum total of the "behaviour" which, it seems, is to prevent Mr. Lawson Tait's further candidature for the Council. It is probable that the reason given will appear to his supporters among the Fellows a trifle inadequate, and that his action will seem to lack that "earnestness and wisdom" whose absence in others has so seriously affected him.—I am, Sirs, yours faithfully,

May 10th, 1892. W. G. DICKINSON.

To the Editors of THE LANCET.

SIRS,—I wish, with your permission, to make a few observations upon the letter from Mr. Lawson Tait in regard to the Council of the Royal College of Surgeons of England, published in your last issue. I happen to be a member of the Fellows' Association, and I have always understood that the objects of that Association were to advance reforms in the Council of the College solely *in the interest of the Fellows.* Entirely with that impression, therefore, I recorded my vote in Mr. Lawson Tait's favour at the last annual election to the Council, and also because Mr. Lawson Tait was one of the candidates recommended by the committee of the Association. We now, however, learn from Mr. Lawson Tait that "on the occasions when I have been a candidate in past years I have had the requirements of the Fellows as the chief part of my programme, *but I have always declared that the interests of the Members have largely entered into my reasons for wishing to obtain a seat on the Council.*" When and where, I should like to ask, has Mr. Lawson Tait declared to the members of the Association that his main purpose of gaining a seat on the Council was that of advancing the interests of the Members.

I for one certainly knew nothing about this avowal of his political faith when I voted for him last July, and I certainly should not have voted as I did had I known the real reasons which impelled him to become a candidate. There is no other conclusion possible with regard to the Members' question at the present time than this—namely, that it is not ripe for solution. Why, then, waste time over it? Why attempt the impossible? Reforms such as the Council will be disposed to grant will be first in the interests of the Fellows, and therefore, sheltered behind its powerful charters and by-laws, the Council can now well afford to regard—truly, perhaps—with irritating equanimity the futile attempts of those who endeavour to thrust the Members' question before it. But as soon as the position of the Fellows becomes improved in the government of the institution, for which the Association is now doing its best to strive, then the lesser element of the "body corporate" would be able to help the greater, and to lend its aid to the advancement of those general reforms which are urgently called for in the interests of the College. But I have another bone to pick with Mr. Lawson Tait. He refuses to stand as a candidate of the Association at the next election, and lets us into the secret of a little family quarrel which he has had with the committee of the *Members'* Association, to which, I believe, he belongs. The effect of this quarrel may be given in his own words: "*I have no longer any reason sufficient to induce me to make the* sacrifice of personal comfort and professional income which a seat on the Council of the College would involve. Therefore I shall not offer myself again in July." In short, to use a vulgar expression, Mr. Lawson Tait will see the Association of the Fellows "hanged first" before he will pose as its candidate, now that his own objects in furthering the interests of the *Members* cannot be attained. A curious commentary is this decision of Mr. Lawson Tait upon the fact that for three years he has been the adopted candidate of the Fellows' Association for a seat on the Council, pledged to press forward those points of reform which the Association has always consistently adopted as its programme. Now, however, that Mr. Lawson Tait has made such a plain statement of his creed in this matter, how will his connexion with the Association of Fellows stand? That is certainly a matter which calls for the consideration of the committee of the Association, and to that body it may be left. Meanwhile, I may take this opportunity of congratulating the committee in having secured so thoroughly a desirable candidate as Mr. Tweedy to represent the views of the Association at the coming election. No better choice could have been made, and all the members

should loyally work to ensure his return. In all cases the italics are mine. I am, Sirs, yours truly,

May 10th, 1892. F.R.C.S.

THE LATE MR. CHARLES HAWKINS.

To the Editors of THE LANCET.

SIRS,—In your obituary published on the 10th of April it is stated that when Mr. Hawkins presented himself to the governors of St. George's Hospital as a candidate for the office of Assistant Surgeon he was unsuccessful, "although he had the powerful support of Sir Benjamin Brodie." I am in a position to state that Mr. Hawkins neither solicited nor received Sir Benjamin Brodie's support on that occasion. Mr. Hawkins then displayed the same independent and chivalrous spirit which was so characteristic during the whole of his professional life. During the election Sir Benjamin Brodie had numerous applications from friends to know which way they should vote, and a word from him would have been conclusive with regard to the result. He however, remained strictly impartial.

I am, Sirs, your obedient servant,

Savile-row, May 9th, 1892. HENRY LEE.

"OPERATION FOR SPASMODIC TORTICOLLIS."

To the Editors of THE LANCET.

SIRS,—If Dr. Harkin had in the first instance only referred to the process of blistering as one which ought to be tried before operation was resorted to for this affection, no objection, I think, could have been raised to his letter; but his attack upon the performance of the operation was most unreasonable and unfair. The evidence of published cases, so far as I am concerned, shows that every means known to myself and to the many other medical men who had treated the cases previously had been put in practice before I resorted to operation. In the future, should opportunity occur, I shall certainly not neglect to try the effect of blistering; but I shall be agreeably surprised if it proves to be an effective cure in *long-standing* cases. That it has failed at least in one such case is a fact which has lately come to my knowledge. Should this and the other simple remedies fail to relieve the patient, I shall still think it justifiable to resort to operation.

To answer all Dr. Harkin's objections would encroach too much on your space, so I limit my remarks to the main points. As to his observations about these operations being "painfully like vivisection, from which even the inferior animals are saved by legal enactment," I would remark that in seven out of eight operations the wounds healed by first intention in less than a week, and that the patients suffered no pain or inconvenience worth mentioning. In one instance the wound was somewhat tedious in healing—owing, I believe, to the patient's weak state of health—but it healed up gradually, leaving very little scar. It is possible that in these long-standing cases some central lesion exists which maintains the spasmodic action. This was so in the case of a fowl, the description of which appears in the Transactions of the Pathological Society, vol. xxvi., p. 252, and, if the same condition exists in the human subject, the *rationale* of operation upon the nerves becomes apparent. I am, Sirs, yours truly,

Queen Anne-street, May 7th, 1892. NOBLE SMITH.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Sad Death of a Roman Catholic Priest.

THE Rev. Father Spencer, a well-known and most deservedly respected Roman Catholic priest, died on the 7th inst. under very sad circumstances. The reverend gentleman had for some years past suffered from angina pectoris. On the evening of the day mentioned he was in his residence, the presbytery of St. Clare's Roman Catholic Church, when he was informed by a lady that a man was in the church rifling the alms box. He ran out and seized the man, who escaped. Father Spencer pursued him for a short distance, and then fell down heavily in the road. He was raised up, placed on a couch, and medical aid sent for, but he expired shortly after his fall. The coroner has decided that an inquest is unnecessary. The deceased has resided in or near Liverpool for many years past, and he will be greatly missed both by rich and poor.

Restriction of the Sale of Intoxicants or of Personal Liberty.

However much one may lament the necessity to check freedom by increased legislation, it is evident that some restriction must be placed either upon the sale of intoxicants or upon the liberty of those who indulge in them too freely. In one day last week the city coroner held inquests on the bodies of four persons who had died from various diseases due to excessive drinking. Since then the deputy coroner has held a fifth inquest, the facts being precisely similar. The money spent in drink would enable the unfortunate men and women afflicted with this terrible curse to live in decent comfort, and there are in this city many of these to whom it would be a charity to remove them from their present surroundings to some place of restraint. The fatalities of intemperance, though a terrible feature of the evil, constitute only a very small part of it, and its worst effects fall most frequently upon soberpeople.

The Lock Hospital.

In THE LANCET of April 30th there is reported the case of a man who was admitted into the London Lock Hospital, the whole of the penis having been lost by sloughing of an ulcer. A somewhat similar case was admitted into the Liverpool Lock Hospital some weeks ago. The patient, who was a fireman on board a steamer, had suffered from an ulcer of the penis; whether this were chancre or chancroid, or whether what followed was sloughing or phagedæna, could not be ascertained. On admission the whole of the penis was gone, leaving a large and unhealthy-looking surface, which, however, rapidly yielded to the local application of iodoform in fine powder applied by means of a pepper-box. The patient left the hospital before the healing process was quite complete in order not to lose his situation. Mr. Lowndes, whose patient he was, has another male patient in whom a considerable portion of the glans penis had sloughed away before his admission. The same treatment had a very beneficial effect, the sloughing process being arrested at once. Mr. Bernard has a female patient suffering from tertiary syphilis in a very severe form, and several severe forms of secondary syphilitic eruptions. He had recently a male patient who had lost more than half of the soft palate on his admission, and though the admissions into this hospital have not, for various reasons, been so numerous as formerly, they have been quite as severe.

Liverpool, May 10th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Royal Infirmary.

THE vacancy on the staff of the Royal Infirmary caused by the death of Dr. Ross, and the consequent promotion of Dr. Harris to the full physiciancy, was on Monday last filled by the election of Dr. A. T. Wilkinson, who at a previous period had for nine years held the post of assistant medical officer to the same institution. The entries of new students for hospital practice were fewer this year than they were last summer. Registration took place during the last days of April, but much time is lost by students delaying to register until the latter half of May, and thus missing the early lectures of the short summer session. The numbers may therefore still reach those of previous years.

Victoria University.

The newly elected Chancellor of the University, Earl Spencer, is to be installed on May 25th. The ceremony will take place in the Town Hall, and the occasion is to be one of full academical dress. There appears to be much anxiety to obtain tickets, and the room will in all probability be crowded. There are few occasions which bring the existence of a University in Manchester before the general public, and this may be the cause of the great interest shown in the forthcoming ceremony.

Epidemics.

The threatened small-pox epidemic has subsided, and since the middle of April no new cases have been reported.

At the end of April there were still six cases in hospital, and the number has now fallen to three; none have ended fatally. The danger may therefore be regarded as past. Cases of influenza are still appearing, but the number of new ones was only four in the last week of April, though the deaths certified as due to that malady were higher than in the preceding week, when the new cases were thirteen in number. This apparent discrepancy may depend in part upon the care taken by practitioners in obtaining the history of the ailment in individual cases, as there is among patients here a great tendency to attribute any illness from which they may happen to suffer to a previous attack of influenza.

Manchester, May 11th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Newcastle Royal Infirmary and the Strikes.

AT a late meeting of the governors of the Royal Infirmary, in reference to the decrease in the workmen's subscriptions owing to the strikes, it was stated that, considering the very large number of men out of work, the decrease was not larger than might have been expected, so it was evident that those in work had done their duty to the infirmary. The resolution of sympathy with the family of the late Dr. Bruce, and of tribute to the deceased gentleman's work, which was passed by the court on the 7th ult., was confirmed. With reference to the strikes and the medical charities generally, it may be stated that in the Elswick works the amount subscribed for the quarter ending April last was only about £200, against about £300 in the previous quarter, before the engineers' strike now happily at an end. All the other medical charities have suffered in proportion.

Ambulance Work in the North.

At a public meeting held at West Hartlepool last week, at which the Mayor presided, Mr. Swanwick was the recipient of a testimonial and presentation. He was thanked most heartily for giving lectures and conducting ambulance classes, and Sir William Grey, in making the presentation of library books, spoke in warm appreciation of Mr. Swanwick's work. Dr. W. Turnbull's course of fourteen ambulance lectures to the Newcastle Wholesale Coöperative Society's *employés* was brought to a close last Thursday. Dr. H. S. Baumgartner of this city was the examiner, and at the close complimented the class on their efficiency and Dr. W. Turnbull on the thoroughness of the instruction given. Dr. Mears has announced a course of ambulance instruction to be given at the Sailors' Home, North Shields, to captains, engineers, officers, and sailors. The course is to consist of five lectures.

The New Asylum for Sunderland.

A deputation from the Town Council of Sunderland has gone to London to confer with the Commissioners in Lunacy with reference to the plans for the new asylum at Ryhope, the Commissioners having suggested certain alterations costing not less than £5000, and the deputation has been appointed to urge strong reasons against these proposals.

Measles in the Darlington Rural Sanitary District.

At a late meeting of the Darlington rural sanitary authority, in the course of a discussion on the prevalence of measles and its notification, Dr. Eastwood said that there were more deaths from measles than any other disease during the quarter. It was more fatal than scarlet fever. If they did not keep one on the list, he did not see why they should keep the other. It was also stated that measles cost three times as much as the other diseases.

The Bowes Museum, Barnard Castle.

Any of your readers thinking of taking a holiday in Whitsun week, and likely to get into the lake district, should try to run over the fells into Yorkshire and see the opening of the Bowes Museum in Barnard Castle. This magnificent building is stored with costly treasures of art and natural history. The opening too will be public.

A Durham Centenarian.

Last Thursday, Mr. Walter Brodie of Low Downs, near Hetton, attained his 100th birthday. He was born in Northumberland, but removed to the neighbourhood of Hetton, where he worked as a miner for eighty-two years. He is said to retain all his faculties with the exception of his eyesight, which is rather feeble. He has a son aged seventy-four, who only gave up his employment as a miner about six months ago, on hearing which, it is said, the old man addressed him thus in a stern and peremptory manner: "Thou should think shem o' th' sell at thy age; thou's only a lad, and talking about giving up wark. Think shem o' th' sell."

Charitable and Scientific Bequests.

It is stated that the late Mr. J. H. Fox, brewer, of Norton near Stockton, has directed to be set aside the handsome sum of £20,000 to erect and endow almshouses for the village of Norton. A condition attaches to the bequest, and it is that it can only operate provided some one gives the necessary land within twelve months.

The late Dr. Heath and the Newcastle College of Medicine.

It is now freely stated that the late Dr. Heath has left about £19,000 for different purposes in connexion with the College of Medicine in this city—viz., £6000 for the endowment of a chair of Comparative Pathology; £5000 to erect residences for students attending the college; and about £8000 for specific purposes in connexion with the college, which cannot be particularised as the will has not yet been proved. I hear that Mr. Frederick Page, formerly a colleague of Dr. Heath and at present one of the surgeons to the Royal Infirmary here, is one of the executors.

Newcastle-on-Tyne, May 11th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh Medico-Chirurgical Society.

AT the meeting of this Society last week Mr. Caird showed a case in which the olecranon had been successfully wired for simple fracture. An important paper was communicated by Dr. Macpherson of the Larbert Asylum, and Dr. David Wallace, Edinburgh, on the Surgical Treatment of General Paralysis of the Insane, with five illustrative cases. The patients were under Dr. Macpherson's care, and the operations were performed by Dr. Wallace. The paper reviewed the pathology of the disease, and discussed the views held as to the nature of the primary disturbance, the authors giving their adhesion to the inflammatory view. The cases were all well-marked instances of the disease. In most of the cases about a square inch and a half of bone was removed from both sides from over the inferior fronto-parietal region. Surgically the cases, without exception, did admirably, all of them healing by first intention. As regards the effect upon the disease itself there was a degree of improvement in the symptoms a short time after the operations. The improvement, however, was of a temporary character.

Scottish Microscopical Society, Edinburgh.

This Society met last week. The meeting was almost wholly occupied by Dr. Carlier, who gave a microscopical demonstration of various organs taken from the hedgehog during hibernation, and compared them with the same organs during summer. The most interesting point brought out, and dwelt upon both by the reader of the paper and the speakers on it, was the occurrence of a profuse migration of leucocytes into the mucous and submucous coats of the greater part of the alimentary tract and round the ducts opening into it. Dr. Carlier regarded this as a proof of the phagocytic function of these cells, and considered that the migration was the means of preventing the invasion of the tissues by the microbes in the intestine—an invasion which would almost certainly take place when the body temperature was so lowered were it not for this provision.

Death of the Rev. John Lowe, F.R.C.S.Edin.

On Monday morning the profession in Edinburgh was startled by the intimation that Mr. Lowe had died suddenly the previous evening. Mr. Lowe was well-known in Edinburgh as the superintendent and secretary of the Training Institution of the Edinburgh Medical Missionary Society. Early in life he went as a medical missionary to Travancore, but was appointed in 1871 to the post he occupied at the time of his death. As an author he was known as the writer of "Medical Missions, their Place and Power," and

a "Life of Dr. Elmslie of Cashmere." He was a man of a quiet and unobtrusive nature, kindly and friendly in manner, and much esteemed by those who were brought into close contact with him in medical mission work. It is understood that he died of cardiac syncope when suffering from some trifling ailment, and that his death was as unlooked for by those around him as by others.

Health of Edinburgh.

The mortality last week was 85, making the death-rate 17 per 1000. Chest affections caused 35 deaths, and zymotic diseases 5. The intimations for the week were: typhoid fever, 5; diphtheria, 1; scarlet fever, 24; measles, 39.

May 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Presentation to Mr. H. Gray Croly, F.R.C.S.I.

A PRELIMINARY MEETING was held at the College of Surgeons on the 6th inst., for the purpose of forming a committee to carry out the proposed presentation to Mr. Croly, President of the College. It is intended to present him with his portrait as a mark of esteem from his professional brethren and as a memorial of having filled the presidential chair for a period of two years in a dignified manner, and for his great hospitality. The honorary secretaries are Mr. Henry Sherlock, F.R.C.S., and Mr. R. Montgomery, F.R.C.S.; while Mr. J. O'Donovan, F.R.C.S., of Kingstown, will act as honorary treasurer. About one hundred gentlemen have intimated their intention of taking part in the presentation.

Royal College of Surgeons.

Mr. William Colles, senior member of council, has resigned his seat, and a by-election to fill the vacancy will be held on Monday next, the 16th inst. The following are candidates—viz., Mr. Auchinleck, Mr. Arthur H. Benson, Mr. Broomfield, Dr. Cranny, and Mr. George Foy. Mr. Colles resigns also the secretaryship of the college, and for this high and honourable office the two candidates are Sir Charles Cameron and Mr. Austin Meldon, both of whom are ex-presidents of their college. Sir Charles Cameron considers that a candidature for such an office should be based upon services rendered to the college, and undoubtedly in this particular he can show a very high record. By his exertions the taxation of the college was reduced by about £140 a year; and by his influence Mr. Dease presented the statue of the late Surgeon Dease, first professor of surgery, which adorns the college hall, and the late Mr. Butcher gave his valuable collection of casts to the college, while Mr. Dease provided, at his suggestion, a room for the reception of the casts, and also a suite of laboratories for the college curator at a cost of £1200. Further, he spent a large portion of his time for three years in writing the history of the college without any pecuniary recompense. Again, on his motion a new charter was obtained admitting women to the privileges of the college; and it was Sir Charles Cameron who originated the scheme of combining the examinations of the college with those of the Apothecaries' Hall, which last year benefited the college by a sum of nearly £450. Lastly, at his suggestion the college instituted a diploma in Public Health, and he obtained for it the privilege of having that diploma registered. The election for the secretaryship will take place the first Monday in June.

Meath Hospital, Dublin.

The medical and surgical prizes obtained at the termination of the winter session were awarded to the successful students this week. The first medical prize was obtained by Mr. C. E. Stokes, and the second prize by Mr. A. McCutcheon. Sir George Porter, Bart., in distributing the surgical prizes, said that the answering in the senior class was of a very high order, and the competition so close that the board determined to give three prizes instead of two as heretofore. Mr. Wm. Taylor was awarded the first senior surgical prize, Mr. F. Warren the second, and Mr. C. Stokes the third prize.

Dublin Main Drainage.

A special meeting of the Corporation was held last Monday with reference to the drainage of the city. The ordinary borrowing powers of the council are insufficient for the sum required for a Main Drainage Scheme (£278,000), and they have therefore resolved to send a deputation to the Chief Secretary to request that the Government shall this session introduce a Public Act declaring that the expenditure on the Main Drainage Scheme shall not be restricted by any of the regulations contained in section 238 of the Public Health Act (Ireland) 1878, and in calculating the amount which the Corporation may borrow under that Act any sums which they may borrow for the purpose of main drainage shall not be reckoned.

Exclusion of Irish Diplomates from English Hospital Appointments.

The following resolutions have been passed by the Council of the Irish Medical Association:—"That the Council of the Irish Medical Association, having had their attention called to a resolution adopted by the governors of the East Sussex Hospital, by which a rule is perpetuated which limits to the diplomates of one London college the appointment of hon. physician to that hospital, and having observed the published statement made by certain of the governors derogatory to the professional status of Irish diplomates, hereby protests against such statements as being inaccurate in fact and unjust to Irish diplomates practising in England. That the Council have, by inquiry, satisfied themselves that there is no ground for these aspersions upon the professional competency and social status of Irish diplomates, and they do not hesitate to assert that, in the extent and nature of the courses of study and of the examinations essential to obtain their diplomas, the requirements of the Irish colleges are fully equal to if not in excess of those of the colleges in London or elsewhere; and that Irish diplomates are, in all respects, well fitted to occupy a position on the medical staff of a public hospital in England or elsewhere. That the Council of the Irish Medical Association are willing that Irish diplomates shall rest their claims for professional advancement upon their own merits, and therefore desire that the governors of hospitals in England shall be free to select the physician or surgeon whom, all things considered, they approve; and the Council therefore protest against an arbitrary restriction of that freedom of election in favour of any medical licensing body whatsoever."

Death of the Oldest Woman in Ireland.

An old lady named Margaret Harpur died recently in the county Wexford at the great age of 110 years, the deceased being regarded as the oldest woman in Ireland. She was born in the year of the volunteer movement, and was in her seventeenth year in 1798, the year of the rebellion, of many incidents of which she had a lively recollection. Her health has been wonderfully good until within the last two years, when her mental faculties became impaired; but she was not confined to her room until last November.

May 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Ovaro-Salpingitis as a Complication of Measles.

As I cannot discover any allusion in the works of classical English authors to the above condition as a complication of measles, M. Galliard's communication to the Société Médicale des Hôpitaux (April 22nd) may be found interesting. The patient was an unmarried woman of twenty-five years, who had never suffered from any affection of the genital organs. About the sixth day after the invasion of measles menorrhagia set in. On the thirteenth day the temperature rose, and the patient complained of pain in the right iliac fossa, while tympanites appeared. On the twenty-second day M. Monod performed abdominal section. The incision gave issue to a quantity of pus, and the inflamed intestines were found to be already covered with false membranes. No purulent collection was discovered in the iliac fossa. The drainage of the peritoneal cavity was provided for after the toilette of the serous lining had been practised. The woman died on the twenty-sixth day; the pus evacuated contained streptococci. Post mortem the heart was found healthy, one ovary was swollen and was the seat of four small abscesses. The Fallopian tube was dilated and surrounded by false membrane; in its lumen was found a certain quantity of pus. In the dis-

cussion that followed, M. Comby asked if M. Galliard was sure that the lesions discovered were not secondary to vulvitis—a common condition in the course of measles. To this query M. Galliard replied that although the vulva and the vagina were certainly congested, the external genitalia were not the seat of suppuration. M. Rendu could hardly bring himself to believe that the suppurative process in the ovary and the tube was caused directly by the attack of measles. He was inclined to think that any infectious disease might produce a similar lack of resistance in the viscera. This view was supported by M. Chantemesse, who recalled two instances of such a complication (ovaro-salpingitis) occurring in the course of typhoid fever. For my part, I am inclined to think that if a minuter examination of the genitalia had been made, the *porte d'entrée* for the streptococcus would have been found. Should it not be the rule to scrupulously disinfect *all* mucous orifices in cases of zymotic disease? Medicine is becoming more and more alive to the truth of the aphorism, "Cleanliness is next to godliness"; and it is certain that these secondary suppurations would become *raræ aves* if ordinary antiseptic precautions were taken to bar the entrance into the lymphatic system of the micro-organisms which are ever on the watch to fix on one or several organs as a nidus for their growth.

A New Symptom of Paralysis of the Laryngeal Muscles.

M. Fauvel states (Société Française d'Otologie et de Laryngologie) that whenever a patient whose voice is either extinct or bitonal and harsh has, in addition, a breath which is offensive and alliaceous, paralysis of the muscles of the larynx may be confidently diagnosed. For several years past M. Fauvel has remarked the constancy of this symptom, the presence of which is due to the decomposition of the mucus stagnating on the surface of the membrane. The odour is *sui generis*, and totally unlike any other. To practitioners unaccustomed to the management of the laryngoscope this phenomenon may be useful in leading them to a correct interpretation of concomitant symptoms referred to the larynx.

The Therapeutical Application of Cycling.

In the current number of the *Semaine Médicale* there appears a valuable contribution to our knowledge of cycling as a therapeutical agent from the pen of our compatriot, Dr. Oscar Jennings of Paris. Dr. Jennings is well known as an enthusiastic advocate of this most pleasant form of exercise, and his opuscule, "La Santé par le Tricycle," is widely read in the different languages into which it has been translated. The paper in question is full of information concerning the advantages to be derived from cycling in such divers maladies as gout, rheumatism, metritis, obesity, phthisis in the first and second stages, asthma, diabetes, dyspepsia, hypochondria, neurasthenia, agoraphobia, &c. No one who carefully reads Dr. Jennings' paper can avoid coming to the conclusion that a large proportion of the sufferers who crowd the waiting-rooms of fashionable physicians would soon forget much of their troubles were they wise enough to take a daily spin on an easy-running machine. It is characteristic of the altered views held on the subject of the treatment of cardiac affections to see cycling actually recommended for this class of cases. Sir Walter Foster states that in aortic insufficiency it is important to increase the frequency of the cardiac pulsations, and most people will agree with Dr. Jennings in regarding gentle cycling as a pleasanter form of exercise than the climbing of mountain slopes advocated by Oertel.

The False Alarm of Cholera in Paris.

In my letter of a fortnight ago I felt it my duty to contradict a disquieting rumour of the appearance of cholera in this capital. The outbreak was a purely local one, being limited to such outlying villages and districts as Nanterre, Neuilly, Puteaux, and Levallois-Perret. Professor Proust has just furnished a circumstantial report on the occurrence to the Comité Consultatif d'Hygiène. The disease was simply cholera nostras, but sufficiently serious to determine a fatal result in forty cases out of a total of sixty-two. The epidemic first made its appearance amongst the inmates of the Nanterre hospital, where the sanitary arrangements appear to be in urgent need of reform. The drinking water is of bad quality, and the feeding insufficient, only 125 grammes of meat being allowed three times a week. The establishment is, moreover, overcrowded, housing as it does double the number for whom accommodation was originally provided. No cases of genuine cholera have been seen in this city for the past seven years. This outbreak of choleraic diarrhœa occurred entirely outside Paris, and ceased altogether on the 20th ult.

Paris, May 11th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

A Practical Triumph of Bacteriology.

NEWS arrived some weeks ago of a plague of mice, which threatened to destroy the whole harvest in the Thessalian plain. Terror seized all Greece, for the Thessalian harvest is the greater part of the total harvest of that country, and all means were tried to put an end to the plague. The ignorance and superstition of the peasants, however, frustrated all attempts, and ruin seemed inevitable. Following Pasteur's advice, it is said, the Greek Government called in the aid of the well-known German bacteriologist, Professor Löffler of Greifswald, who has put an end to the plague by causing a fatal pandemic among the mice.

Stoking in the Tropics.

The maritime courts frequently have to deal with cases of stokers who spring overboard in the tropics, and Dr. Arnold Kurrer, assistant in the Pathological Institute at Kiel, has made a special study of this form of suicide. On a voyage from Hamburg to Java he carefully observed the temperature of the stokers, the simultaneous temperature of the engine-room and the outer air, the motion of the air, and other climatic circumstances. Only Hindus were employed as stokers on board his ship; but he has informed himself of corresponding phenomena in the case of European stokers. He found that stokers of both races are exposed in the tropics to such heat that their health is very often seriously impaired, even not unfrequently to the danger of their lives. The enhancement of the animal heat is considerably influenced by the motion of the air. The Hindus generally suffer less than the Europeans, who often do themselves much injury by wearing unsuitable clothes. The increase of animal heat in the Hindu stokers is remarkably uniform, but differs greatly among the Europeans, owing, as Kurrer thinks, to a special disposition of the latter, produced by alcohol, malaria, and diseases of the skin and the vessels. He advises that European stokers should not be employed in the tropics, and that only such as have perfectly healthy lungs and skins should engage in the work. First-rate ventilation is, of course, of paramount importance. It seems strange that, in this age of ingenious inventions, no method of automatic stoking has yet been introduced. It would be of much greater value to mankind than the phonograph.

Berlin, May 10th.

Obituary.

CHARLES ROBERT SMITH, M.B. CANTAB., M.R.C.S.

THE death of this gentleman took place at his residence in Darlington-street, Wolverhampton, on the 27th ult. He was forty-one years of age, and a bachelor. He received his early education at the Wolverhampton Grammar School, and completed it at Cambridge, where he gained honours as a Wrangler, being eighteenth in the list. He also took the degree of M.B., and obtained several University prizes. He returned to Wolverhampton about 1877 and commenced practice in Darlington-street, and succeeded to his father's practice in the Dudley-road on the death of that gentleman, but last year returned to Darlington-street. In 1886 he was elected a member of the Wolverhampton Town Council, and took an active interest in municipal affairs. He will be long remembered for his zeal in promoting the establishment of the local Eye Infirmary, for his association with the Women's Hospital, and also for his connexion with the founding of the Wolverhampton Literary and Scientific Society.

J. M. BEVERLEY, M.D. LOND., M.R.C.S.

MUCH regret will be felt at the early death of Dr. J. M. Beverley, who passed away at the little village of Ospedaletti, Italy, early on Sunday morning, May 1st.

He was only thirty-one years of age, and had been for some years in general practice at Littlehampton in Sussex, where he was liked by all with whom he came in contact. His strict sense of duty, careful attention to work, and general kindliness had endeared him to everybody in the neighbourhood. Dr. Beverley had been a brilliant student at the Owens College, Manchester. Last October he was ordered to winter abroad on account of failing health, and since then he has borne with patience and fortitude the rapid advances of an attack of phthisis, to which he succumbed a few days ago. He leaves a wife and two children.

PROFESSOR AUGUST WILHELM HOFMANN.

CHEMISTS have lost an able and eminent investigator in the person of Professor Hofmann. This distinguished *savant* died in Berlin on the 5th inst. His name will ever be linked with the discovery of some of the most beautiful dyes science has produced. Aniline red, indigo, and Hofmann's violet may be taken as examples. His well-known simple and accurate method for the determination of the vapour density of substances is made use of by investigators at the present time. After spending three years at Bonn, Professor Hofmann, in 1848, was, on Liebig's recommendation, appointed superintendent at the Royal College of Chemistry in London. The institution made rapid progress under his direction, and in 1853 was merged in the Royal School of Mines as the Chemical Section. In 1855 Professor Hofmann was appointed by the British Government a warden of the Royal Mint. In 1864 he was appointed to the chair of Chemistry at Bonn, whence he was summoned to Berlin in the following year, and he has there ever since occupied the professorial chair of Chemistry. In 1854 he was awarded a Royal medal, richly deserved for his memorable "Memoirs on the Molecular Constitution of the Organic Bases." Professor Hofmann's researches contributed in no small measure to raising the dyeing industry to the high level it has since attained. This alone will stand as an inscription on his monument not easily effaced.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary meeting of the Comitia was held on Thursday evening, May 12th, Sir Andrew Clark, President, in the chair.

The Fellows recently elected were admitted, and a communication from Dr. Clement Dukes, of Rugby, was read. The College then proceeded to elect a Bedell in the place of Mr. Gurner, who will retire at midsummer, and on the recommendation of the President, Treasurer, and Registrar, appointed Mr. William Fleming, who has for some twenty years been in the service of the College, formerly as clerk to the Registrar and assistant to the Librarian, and latterly has acted as chief clerk to the Secretary at the Examination Hall. A report from the Finance Committee recommending a retiring pension to the Bedell, Mr. Gurner, was received and adopted, with a slight modification.

Reports from the committee of management dealing with certain conditions of exemption from the College examinations, and also with the arrangements for the First and Second Examinations under the Five Years' Scheme, were received and adopted.

Brief formal business connected with the enactment, alteration, and repeal of various By-laws and Regulations brought the meeting to a close at an early hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council, held on Thursday, the 12th inst., the Minutes of the quarterly Council, held on April 7th, were read and confirmed.

Mr. Jabez Thomas was introduced, and after signing the By-laws and making the required declaration, was admitted a Fellow of the College.

As recommended by the Jacksonian Committee, the subject of the next Collegial Triennial Prize is to be the Spleen, its Anatomy and Physiology, illustrated by Comparative Anatomy.

The report of the Committee of Management, dated March 28th, was approved and adopted. The following report of the Committee of Management, dated May 9th, was approved and adopted, subject to adoption by the Royal College of Surgeons:—

That the examinations in Chemistry (and Physics relating to Chemistry), Elementary Anatomy, Anatomy and Physiology, under the new regulations, dated Jan. 1st, 1892, be conducted in the same manner as heretofore, and that the examinations in Practical Pharmacy and Elementary Biology do consist of an oral examination with specimens, in accordance with the following regulations: viz.:—

FIRST EXAMINATION.

Part 1: Chemistry and Physics.—There shall be a written paper, for which three hours shall be allowed; and an oral and practical part, which shall occupy not less than thirty minutes.

Part 2: Practical Pharmacy.—There shall be an oral examination, which shall occupy not less than ten minutes.

Part 3: Elementary Biology.—There shall be an oral examination, which shall occupy not less than fifteen minutes.

Part 4: Elementary Anatomy.—There shall be an oral examination, which shall occupy not less than ten minutes.

SECOND EXAMINATION.

Anatomy and Physiology.—There shall be a written paper in each subject, for which three hours shall be allowed, and an oral and practical examination in each subject, which shall occupy not less than fifteen minutes.

The annual meeting of Fellows of the College for the election of members of the Council will be held on Thursday, July 7th, at 2 P.M.

A letter of the 9th inst. was read from Dr. Liveing, reporting the appointment of a Committee of the Fellows of the Royal College of Physicians "to consider and report from time to time on any proceedings relating to the formation of a University for London so long as that subject is under consideration." No special committee was appointed, but it was referred to the President and Vice-Presidents to watch the proceedings of the Royal Commission and report thereon to the Council if necessary.

A letter from Dr. B. C. A. Windle was read, reporting the approaching transfer of the medical school hitherto carried on in Queen's College from that college to Mason College, and requesting that the recognition now extended by the College to the medical school of Queen's College might be transferred to the medical school of Mason College. The request was granted.

A letter of the 23rd ult. was read from Mr. H. Percy Dunn, reporting the following resolution adopted by the Committee of the Association of Fellows, viz.:—"That the Committee of the Association of Fellows of the Royal College of Surgeons, having noticed that the Council of the College has appointed a committee to consider the claims of the Fellows, would suggest that a deputation from the Association should be asked to meet the committee in order to set forth the views of the Association." The following reply was directed to be forwarded: "That the Council do not consider it expedient that their committee should receive any deputation, but that the Council will be glad to receive any written communication from any Fellow or Fellows of the College as to any further advantages, not involving changes in the Charters and By-laws, that might be extended to the Fellows."

The Council decided to purchase a replica of a bust by Mr. T. Brock, R.A., of the late Mr. John Marshall, F.R.S.

THE ELECTION OF CORONERS.—We understand that the election of the coroners to fill the vacancies created by the death of the late Mr. Carter and of the late Dr. Diplock respectively rests in the hands of the Public Control Committee of the London County Council. It is unlikely that the appointment will be made for some weeks, as the Privy Council have not yet sanctioned the proposed severance of Middlesex from the London portion of the existing districts, and the extension of the jurisdiction of each of the three coroners, Mr. Braxton Hicks, Mr. Wyatt, and Mr. Carttar.

Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April sittings of the Conjoint Board, held in Glasgow, the following candidates passed the respective examinations:—

First Examination.—Thomas A. Beadle, Durham; John F. Neville, co. Cork; Thomas Gallacher, Port Glasgow; Robert P. Graham, Glasgow; Robert G. Whitelaw, Kirkintilloch; Thomas Shanasy, Adelaide; William M. Sheen, Gravesend; James Boyd, Glasgow; David S. Henderson, Coatbridge; Benjamin Wade, Pudsey; Roger Laverty, co. Down; Wm. H. Curtis, Hampshire; Thomas Wm. Robinson, Limerick; John O'L. Driscoll, Bandon; William Thomas, Glasgow; John M. Beattie, Belfast; George S. R. Stritch, Galway; James James, Cardiff.

Second Examination.—Wm. Edward Jones, Liverpool; Janet Russell Wells, Glasgow; Kate Kirk Paton, Glasgow; Catherine Howie, Glasgow; John Macintosh, Glasgow; John O'Connell, co. Kerry; Thomas Parker Powell, Breconshire; John M'Lean, Glasgow; Alfred H. Mountcastle, Manchester; Alexander Whyte Mason, Glasgow; Joseph A. Blayney, Haslingden; James Fenwick, Accrington; Samuel T. Brooks, Farnworth; Wm. R. Abernethy, Londonderry; Anthony Strong Rose, Morpeth; Robt. P. Snodgrass, Montreal; James Devon, Glasgow; Robert Owen, Carnarvonshire; George Hill, Glasgow; James H. Robinson, Southport; J. F. Wm. Ward, India.—*Anatomy and Physiology:* Ebenezer Allan, Joseph Tibbetts.—*Anatomy:* Edward Denison.—*Physiology:* Joseph P. Woodhouse.—*Materia Medica:* Robert Alexander M. Robinson, Allan Forde, Cecil W. Roebuck.

Final Examination.—Jessie MacLaren Macgregor, Edinburgh; S. I. Williams, Edinburgh; David Edward Richards, South Wales; Henry Gould, Glasgow; James W. Hudson, Millom, Cumberland; Sydney E. Rossiter, Lambton, Durham; Archibald Mackellar, Glasgow; Walter Fisher, Edinburgh.—*Medicine and Therapeutics:* Matthew Marriott, L. Burges.—*Surgery:* Samuel E. Jones, Edward R. Pollard, William E. Blakely, Thomas G. G. Symons.—*Midwifery and Medical Jurisprudence:* E. R. Pollard, Wm. Wardman, John Clark, Rees T. Jones, Thomas C. Hunter.

UNIVERSITY OF DUBLIN.—At a recent meeting of the Senate the degree of Doctor in Medicine was conferred on Alfred Russell Darley.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the Medical Degrees Examination:—

Upper Pass Division.—*Robert Campbell, Herbert Cunningham, Richard Heard. (The candidate marked with an asterisk may present himself for the further examination for Honours.)

Pass Division.—Patrick L. Aherne, Kennett B. Barnett, David J. F. Bennett, Henry R. Corbett, Michael Coughlan, Isaac Davidson, William J. Molloy, Michael O'Sullivan, James R. Thomson.

Doctor in Medicine.—Ambrose E. J. Berminghan.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following candidates have passed the Final Examination, and if of age are entitled to be admitted Licentiates of the Colleges in Medicine, Surgery, and Midwifery:—

H. W. Cave, M. J. Chevers, J. O'C. Donelan, F. L. Flood, D. H. Foley, P. J. Garland, L. A. Jameson, A. R. Moore, W. W. Scarlett, J. P. Sexton, Temple Smyth, E. H. Tweedy, W. P. Walsh.

The following have passed in the subjects indicated:—

Medicine.—E. A. Guinness, R. B. Hunt, V. E. McDonogh, J. M. O'Callaghan, W. J. Trewhella.

Surgery.—F. C. A. Bushman, W. J. Trewhella.

Midwifery.—A. A. Hargrave, F. O. Stoker, Miss J. Gwynne.

HOSPITAL SUNDAY FUND.—The Lord Mayor has received a cheque for £105 in payment of legacy (duty free) by the executors of the late Dr. H. E. Price of West Brighton.

A WATFORD CENTENARIAN. — The Watford Guardians, at their meeting last week, were informed that Elizabeth Ginger, of Bell-lane, Hendon, had passed her 100th year, and in celebration of her centenary they voted her an allowance of 5*s.* instead of 4*s.* per week, as hitherto.

OPEN SPACES FOR NORTH-WEST LONDON.—The St. Pancras Vestry have resolved to recommend the London County Council to purchase the vacant pieces of land, over two acres in extent, in Highgate-road, by Highgate-road Station. The vestry's recommendation was passed with the concurrence of the Council, who still hold a considerable portion of the £12,000 vested in them for the extension and improvement of open spaces in the parish.

ST. BARNABAS' CONVALESCENT HOME, RAMSGATE.—The annual report for 1891 shows that satisfactory progress had been made by the institution during the year. The year's income was adequate to meet the expenditure and to leave a small surplus in hand; 289 patients were admitted in the course of the twelvemonth. Accommodation is provided for six lady boarders, a branch of the work which had been well tested.

MEDICAL MAGISTRATE.—The name of William Armstrong, M.R.C.S., has been placed on the Commission of the Peace for Manchester.

DR. HEYWOOD SMITH will read to the British Nurses' Association, on Friday, May 20th, at 8 P.M., a paper on the subject of Gynæcological Nursing.

PROPOSED CONVALESCENT HOME AT LEEDS.—A scheme has been started for providing a convalescent home for the West Ward.

FOOTBALL CASUALTY. — A young man aged eighteen, while playing a game on Saturday, on Glasgow Green, fractured his clavicle.

LONDON TEMPERANCE HOSPITAL, HAMPSTEAD-ROAD, N.W.—The Duchess of Westminster, accompanied by the Duke of Westminster, formally opened on Wednesday, in the presence of a large assembly, the "Grosvenor" Children's Ward at this institution—a ward which will supply a long-felt want.

THE SUSSEX COUNTY HOSPITAL.—The largest benefaction ever received by the Sussex County Hospital was announced to the management of that institution on the 9th inst., the late Mr. John Silvani of Brighton having left an immediate bequest of £10,000; while the hospital is also to receive the residue of the estate, which is estimated at £20,000. Several Brighton charities receive £1000 each.

CREMATION IN SCOTLAND.—The report of the directors of the Scottish Burial Reform and Cremation Society, Limited, states that since the company was registered in December, 1890, with a nominal capital of £5000 in £1 shares, over £700 has been subscribed in the past two years towards the £1000 or £1500 considered necessary to enable a start to be made, and the directors are sanguine that in a very short time they will be able to proceed with the erection of a crematorium.

RECOGNITION OF A SURGEON'S BRAVERY. — A meeting has been held in the dining hall at Messrs. Tangye's works for the purpose of presenting to Mr. W. E. Bennett (surgeon to the works) a bronze medal and a certificate awarded by the Royal Humane Society, in recognition of his bravery in saving the life of a man named Samuel Loton on Feb. 29th. Mr. R. Tangye, who presided, explained that Loton was found struggling in the Birmingham Canal, near Rabone-lane bridge. A young lady named Dodd, seeing Loton in the water, ran for help, and, finding Mr. Bennett in the dispensary, told him of the accident. This gentleman hurried to the spot, and plunging into the water succeeded in rescuing Loton, who was unconscious, and Mr. Bennett was also exhausted. After a time Loton was restored to consciousness; and he (the speaker) congratulated Mr. Bennett upon having saved the man's life. Alderman Pollack then made the presentation, which was suitably acknowledged.

CHICAGO EXHIBITION. — The Subcommittee of Nursing and Hygiene for the British Section at the Chicago Exhibition has been formed. It consists of the following members: Lady Jeune, Mrs. Priestley, Miss Shaw Lefevre, Mrs. Bedford Fenwick (who will preside), Mrs. Holmes Spicer (hon. sec.), Miss Isla Stewart, Matron and Superintendent of Nurses, St. Bartholomew's Hospital (adult nursing); Miss Lumsden, Hon. Superintendent, Royal Infirmary, Aberdeen (adult nursing); Miss Henrietta Poole, Lady Superintendent, Adelaide Hospital, Dublin (adult nursing); Miss K. Hendie Close, Lady Superintendent, Hospital for Sick Children, Great Ormond-street (children's nursing); Miss Josephine de Pledge, Matron, Chelsea Infirmary (infirmary nursing); Miss Maud Mansel, Inspector, Queen Victoria's Jubilee Institute for Nurses (district nursing); Miss Edith Kirwan Ward (private nursing); Miss Sophie Cartwright, Sister-in-Charge, Gordon House Home Hospital (home nursing); Miss Annesley Kenealy, Lecturer to the National Health Society (sick dietary). As it is earnestly desired that the representation of British nursing appliances shall be as complete as possible, the subcommittee invite suggestions and exhibits from all parts of the country. Members of the subcommittee will be present at 53, Berners-street, W., every Monday until the end of July, from 5 P.M. to 6.30 P.M., to receive suggestions from all those nurses and others who are interested in this department of woman's work. Communications by letter to be addressed to Mrs. Bedford Fenwick, 20, Upper Wimpole-street, W.

MEDICAL NOTES IN PARLIAMENT.

The Vaccination Commission.

IN the House of Commons on Thursday, Mr. Summers asked the President of the Local Government Board whether it was his intention to propose legislation to give effect to the recommendations of the Royal Commission on Vaccination.—Mr. Channing asked the right hon. gentleman whether, in view of the fact that one of these recommendations was that vaccination prisoners should no longer be subject to the treatment of ordinary prisoners, he would assent to the second reading of the Prisons Acts Amendment Bill now before the House, and give to these prisoners the treatment of first-class misdemeanants.—Mr. Ritchie intimated that the Home Secretary would reply to the questions.—Mr. Matthews said that the Government had not yet had an opportunity of considering the report, and therefore were unable to make any statement on the subject.

The Coroners in Boroughs Bill.

When the order for the committee stage of this Bill is reached Sir Albert Rollit will move an instruction to the effect that the committee have power to extend the provisions of the Bill to the appointment of deputies of coroners in counties and as to the time of election.

Public Health Acts Amendment Bill.

This Bill was read a second time.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARBER, FREDERIC S., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Surgeon to the Bradford Infirmary, vice Mr. Horrocks.

BOWES, WM. HENRY, M.D., B.S. Lond., F.R.C.S. Eng., has been appointed Assistant Medical Officer to the Plymouth Borough Asylum, Ivybridge, Devon.

BUSHBY, THOS., M.B., C.M. Edin., has been appointed Honorary Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool.

CHEETHAM, W. H., M.D., L.S Sc., has been appointed Medical Officer of Health to the North Riding County Council (Yorkshire), vice Dr. J. Taylor, deceased.

CLARKE, HUGH A., M.D., M.Ch. Irel., has been appointed Honorary Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool.

CLARKE, THOS., M.D., M.Ch. Irel., has been appointed Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool, vice Robertson.

FITZGERALD, G. C., B.A., M.D., B.C. Cantab., M.R.C.S., has been appointed Medical Superintendent of the Kent County Asylum, Chartham.

GEORGE, ALFRED W., M.B. Edin., M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Medical Officer to the Kilburn, Maida-vale, and St. John's-wood Dispensary.

GODFREY, CLARENCE G., M.R.C.S., L.R.C.P. & S. Edin., late of Ararat and Yarra Bend Asylums, has been appointed Assistant Medical Officer to the Kew Hospital for the Insane, Melbourne.

HARRIS, Dr., has been appointed Honorary Physician to the Royal Infirmary, Manchester.

HICKS, E. B., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Easingwold Sanitary District of the Easingwold Union.

HOPKINS, F. G., M.B., B.Ch. Dub., has been appointed Assistant Medical Officer of the Workhouse for the Parish of Liverpool.

KEIFFENHEIM-TRUBRIDGE, L. W., M.D., B.S. Durh., M.R.C.S., L.R.C.P., has been appointed Honorary Physician to the Chelsea, Brompton, and Belgrave Dispensary, Sloane-square.

LAWTON, H. A., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Poole Urban and Port Sanitary Districts.

MACKIE, J., M.B., C.M. Glasg., has been appointed Medical Officer for the Lowdham Sanitary District of the Southwell Union.

MATTHEWS, A. A., L.D., S.R.C.S., has been appointed Honorary Dental Surgeon to the Bradford Infirmary.

PHILLPOT, G. F., L.R.C.P. Edin., L.M., M.R.C.S., has been appointed Medical Officer for the Second Sanitary District of the Aylesbury Union.

POTTS, W. J., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Crumpsall Workhouse of the Township of Manchester.

ROBERTSON, R. G., M.B., C.M., L.R.C.P., L.R.C.S. Edin., has been appointed Consulting Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool.

THOMPSON, JOHN H., L.K.Q.C.P., L.M. Irel., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Urban Sanitary District of Mytholmroyd, Yorkshire.

VERNON, J. J. D., M.B. Lond., B.S., M.R.C.S., has been appointed Medical Officer for the Audley Sanitary District of the Newcastle-under-Lyme Union.

WATSON, W. R. KEMLO, M.A., M.B., C.M. Glasg., has been appointed Assistant Medical Officer to the Govan Poorhouse and Asylum, vice Dr. J. M'C. Johnston, resigned.

WIGHTMAN, J. P., L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Surgeon to the Bradford Infirmary.

WILKINSON, A. T., M.D. Lond., M.R.C.P., has been appointed Honorary Assistant Physician to the Royal Infirmary, Manchester, vice Dr. Harris.

WILSON, T. S., B.Sc., M.B., C.M. Edin., M.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the General Hospital, Birmingham, vice Wade, resigned.

[ERRATUM.—By a clerical error we announced in our last issue that Dr H. W. Nix had been appointed Assistant Medical Officer for the Workhouse and Infirmary of the Parish of St. Marylebone. The initials should have been "W. H."]

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOOTLE BOROUGH HOSPITAL.—Assistant House Surgeon and Dispenser. Salary £40 per annum, with board, lodging, and washing.

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum, with board and residence.

BRISTOL ROYAL INFIRMARY.—Honorary Assistant Surgeon.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer for one year. Salary £30 per annum, with board and residence.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon. Honorarium £25 per annum, with board, lodging, and washing.

COUNTIES ASYLUM, Carlisle.—Junior Medical Assistant.

COUNTY ASYLUM, Prestwich, Manchester.—Assistant Medical Officer. Salary commences at £100, increasing to £125 at the end of the first, and to £150 at the end of the second year, with furnished apartments, board, and washing.

FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Medical Officer. Salary to commence at £160, with residence free; also Midwifery fees, &c. (Apply to Mr. Gough, 157, Harrowby-street, Liverpool.)

GENERAL HOSPITAL, Birmingham.—Assistant Physician for three years. Honorarium £100 per annum.

GREAT YARMOUTH HOSPITAL.—House Surgeon. Salary £90 per annum, with board and lodging (but no wines, spirits, beer, &c., are found).

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent-square, S.W.—Chloroformist.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Resident Medical Officer. Salary £50 per annum, with board and lodging.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Resident House Physician for one year. Salary £60 per annum, with board and residence in the hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant House Surgeon (non-resident) for one year. Salary £50.

HOSPITAL FOR WOMEN, Soho-square, London, W. House Physician for six months. Salary £30 for that period.

LANCASTER INFIRMARY AND DISPENSARY.—House Surgeon (unmarried). Salary £80, with residence, board, attendance, and washing.

LEYBURN UNION.—Medical Officer and Public Vaccinator for the Middleham Western District of the Union. Salary £15 per annum, exclusive of medical extras and vaccination fees. (Apply to the Clerk to the Guardians, Leyburn, Yorks.)

LONDON COUNTY ASYLUM, Cane-hill, Purley, Surrey.—Fifth Assistant Medical Officer. Salary £120 per annum, rising by £5 a year to £150, with board, furnished apartments, and washing. (Apply to the Clerk, Asylums Committee, Office, 40, Craven-street, Strand, W.C.)

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £70 per annum, with board and residence at the Institution.

NORTHAMPTON FRIENDLY SOCIETIES' MEDICAL INSTITUTE.—Assistant Medical Officer (out-door). Salary £200 per annum, with part Midwifery fees. (Apply to the Secretary, 22, Cromwell-street, Northampton.)

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—Resident Medical Officer, for four months. Salary at the rate of £60 per annum, with board and residence.

SOUTHPORT INFIRMARY.—House Surgeon. Salary £100 per annum, with board, furnished rooms, and attendance.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—Dental Surgeon.

WESTERN FEVER HOSPITAL, Seagrave-road, Fulham, S.W.—Clinical Assistant for three months. Board, furnished apartments, and washing provided.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Junior House Surgeon. Salary £50 per annum, with board and apartments.

WORKSOP DISPENSARY.—Resident Surgeon. Salary £120 per annum, with rooms, coals, gas, furniture, and Housekeeper found.

Births, Marriages, and Deaths.

BIRTHS.

BURNIE.—On May 5th, at Houghton House, Bradford, the wife of W. Gilchrist Burnie, M.R.C.S., of a son.

CHAMPNEYS.—On May 7th, at Upper Brook-street, the wife of Francis Henry Champneys, M.D., F.R.C.P., of a son.

CULHANE.—On May 3rd, at Great Marlow, Bucks, the wife of F. J. F. Culhane, Surgeon, of a son.

GARROD.—On May 5th, the wife of Archibald E. Garrod, M.D., of Chandos-street, Cavendish-square, W., of a daughter.

HULBERT.—On April 24th, the wife of H. H. Hulbert, M.R.C.S., L.R.C.P., of Ely, Cambs, of a son.

WOOLLETT.—On May 11th, at Telford-avenue, the wife of C. J. Woollett, F.R.C.S., of a daughter.

MARRIAGES.

HAYDON—BEWES.—On May 3rd, at St. Mary's Church, Wolborough, Newton Abbot, Edgar Haydon, M.B., youngest son of the late N. J. Haydon, M.D., F.R.C.S., of Bovey Tracey, Devon, to Edith, eldest daughter of the late Captain Frederick Duffy Bewes, 11th (Devonshire) Regiment, of Beaumont Lodge, Newton Abbot.

MATTHEY—BLYTH.—On April 19th, at St Philip's, Georgetown, British Guiana, Arthur Matthey, M.R.C.S., L.R.C.P., youngest son of the late John James Matthey, of Messina, to Florence Rosalind, youngest daughter of the late Lt.-Colonel S. F. Blyth, 1st Battalion, Royal Sussex Regiment.

OVERTON—WATKINS.—On May 5th, at St. Peter's, Newton-le-Willows, by the Vicar, the Rev. H. Monk, assisted by the Rev. T. W. Johnstone, Arthur Overton, M.R.C.S. &c., of Huddersfield, second son of John Overton, of Horncastle, to Alice Mabel Watkins, youngest daughter of John W. Watkins, M.D. &c., of Newton-le-Willows. No cards.

PILGRIM—MANIFOLD.—On April 12th, at the Civil Registry, and afterwards at St. Peter's Anglican Church, Flores de Buenos Ayres, Eustace Graham Pilgrim, M.B., C.M. Edin., son of the late Henry Pilgrim, Esq., of The Garden, Barbadoes, to Constance Fenton, daughter of Surgeon-General Michael Fenton Manifold, F.R.C.S., A.M.D., Retired, Putney, S.W.

DEATHS.

BEVERLEY.—On Sunday, May 1st, at Ospedaletti, Ligure, Italy, John Metcalfe Beverley, M.D., late of Littlehampton, Sussex, in his 32nd year. No cards.

DEVEREUX.—On May 7th, at North House, Tewkesbury, D. Devereux, M.D., aged 57 years.

DONOVAN.—On May 8th, at the Dispensary, Worksop, Notts, D. W. Donovan, M.R.C.S.

GILDERSLEEVES.—On May 6th, at Camberwell, Thomas Barfoot Gildersleeves, M.R.C.S., L.S.A., formerly of Liverpool, in his 72nd year.

HARDINGE.—On May 4th, at Kilburn, John Richard Hardinge, M.D., M.R.C.S., late of Cornwall-road, Notting-hill.

KEELAN.—On May 9th, at Cra'gmore, Holderness-road, Hull, Fleet-Surgeon P. Keelan, R.N., M.D., F.R.C.S.I.

LINTON.—On April 4th, at Peshawar, N. India, Henry James Linton, Surgeon-Lieut.-Colonel, 26th P.N.I., son of Canon Linton, Vicar and Rural Dean of Birkenhead.

LOWE.—On May 8th, at George-square, Edinburgh (very suddenly), the Rev. John Lowe, F.R.C.S.E., Secretary and Superintendent of the Edinburgh Medical Missionary Society.

REED.—On May 9th, at Great Blake-street, York, William Reed, M.R.C.S., aged 82.

STANGER.—On May 6th, at the residence of his son, St. John's Towers, Wakefield, George Eaton Stanger, Surgeon, of Brook-green, London, W., aged 76.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

A Pocket Case-book for Practitioners and Students. By A. T. Brand, M.D., C.M. 1892.

Dermic Memoranda. By Wm. Gemmell, M.B. 1892. pp. 116.

CARR, GEORGES, Paris.

Manuel d'Ophthalmologie. Par le Docteur E. Fuchs. Traduit sur le Deuxième Édition Allemande par le Dr. C. Lacompte et le Dr. L. Léplat. 1892. pp. 815.

CASSELL & CO., London.

The Students' Handbook of Surgical Operations. By Fred. Treves, F.R.C.S. Illustrated. 1892. pp. 496.

On Gall-stones and their Treatment. By A. W. Mayo Robson, F.R.C.S. Illustrated. 1892. pp. 285.

CHURCHILL, J. & A., New Burlington-street, London.

Notes on Dental Practice. By H. C. Quinby, L.D.S.I. Illustrated. 1892. pp. 216.

Differentiation in Rheumatic Diseases (so called). By Hugh Lane, L.R.C.P., M.R.C.S. Second Edition. 1892. pp. 121.

DOUGLAS, DAVID, Edinburgh.

Dissertations by eminent Members of the Royal Medical Society.

GRIFFIN & CO., Exeter-street, Strand, London.

Official Year-book of the Scientific and Learned Societies of Great Britain and Ireland. Ninth annual issue. 1892. pp. 233.

LEWIS, H. K., Gower-street, London.

A Text-book of Morbid Histology. By R. Boyce, M.B., M.R.C.S. Illustrated. 1892. pp. 477.

Notes on Pathology. A Handbook for the Post-mortem Room. By the late R. E. Carrington, M.D. Lond. Edited and Revised by H. E. Crook, M.D. Lond., and G. Mackeson. 1892. pp. 150.

The Disinfection of Scarlet Fever and other Infectious Diseases by Antiseptic Inunction. By J. Brendon Curgenven, M.R.C.S. 1891. pp. 25.

Guide to the Administration of Anæsthetics. By Henry Davis, M.R.C.S. Second Edition. 1892. pp. 92.

Flushing and Morbid Blushing; their Pathology and Treatment. By Harry Campbell, M.D. Lond. 1890. pp. 270.

The Principles of Bacteriology: a Practical Manual for Students and Physicians. By A. C. Abbott, M.D. Illustrated. 1892. pp. 263.

Illustrated Lectures on Nursing and Hygiene. By R. L. Roberts, M.D. Lond., D.P.H. Camb. Illustrated. Second Edition. 1892. pp. 213.

LONGMANS, GREEN, & CO., London.

Quain's Elements of Anatomy. Edited by E. A. Schäfer, F.R.S., and G. Dancer Thane. Vol. II. Part II.: Arthrology, Myology, Angeiology. By Professor Thane. Illustrated. Tenth Edition. 1892. pp. 593. Price 18s.

Watts' Dictionary of Chemistry. Revised and entirely rewritten. By H. F. Morley, M.A., D.Sc., and M. M. P. Muir, M.A., assisted by eminent Contributors. In Four Volumes. Vol. III.: In—Ph. 1892. pp. 856. Price 50s.

MACMILLAN & CO., London.

An Introduction to Modern Therapeutics: being the Croonian Lectures. By T. Lauder Brunton, M.D. 1892. pp. 195. Price 3s. 6d. net.

MARTEN, B. R., Market-hill, Sudbury.

An Invalid's Twelve Years' Experience in Search of Health. By Wm. Russell. With Appendix. pp. 413. Price 10s. net.

PENTLAND, YOUNG J., Edinburgh and London.

International Clinics: a Quarterly Journal of Clinical Lectures. Edited by J. M. Keating, M.D. Philadelphia, and others. Vols. III. and IV. 1892. pp. 372 and 382.

The Principles and Practice of Medicine. By Wm. Osler, M.D., F.C.P. 1892. pp. 1079.

A System of Practical Therapeutics. Edited by H. A. Hare, M.D., assisted by W. Chrystie, M.D. Vols. I. and II. Illustrated. 1892. pp. 1052 and 1158.

RUEFF, J., ET CIE, Paris.

Des Troubles du Langage chez les Aliénés. Par J. Séglas. 1892. pp. 304.

SAUNDERS, W. B., Walnut-street, Philadelphia.

Diseases of the Eye. By G. E. de Schweinitz, M.D. Illustrated. 1892. pp. 641.

SMITH, ELDER, & CO., Waterloo-place, London.

Dictionary of National Biography. Edited by Sidney Lee. Vol. XXX. Johnes—Kenneth. 1892. pp. 446.

SUPERINTENDENT GOVERNMENT PRESS, Madras.

Elephantiasis and Allied Disorders. By John Maitland, M.D. 1891. pp. 54.

WOOD & CO., New York.

A Text-book of the Practice of Medicine, for the use of Students and Practitioners. By R. C. M. Page, M.D. 1892. pp. 568.

Practical Microscopy. By M. N. Miller, M.D. Second Edition. Illustrated. 1891. pp. 217.

Statistique des Opérations pratiquées au Mans du Janvier, 1891, au Janvier, 1892; par le Dr. Henri Delagénière, 1891 (Revue des Sciences Naturelles de l'Ouest; Paris, 1892).—Wilson's Legal Handy Books: How to Appeal against your Rates; by A. D. Lawrie, Barrister-at-Law; fifth edition; 1892, pp. 92; price 1s. 6d.—Gymnastic Exercise as a Prophylactic and Curative Remedy in Chest Diseases; by E. O. Otis, M.D. Boston, Mass. (W. B. Saunders, Philadelphia).—First Aid to the Injured: Annual Report of the Central Executive Committee, 1890 (C. Cull & Son, London).—Die Therapeutischen Leistungen des Jahres 1891; von Dr. Arnold Pollatschek (J. F. Bergmann, Wiesbaden, 1892).—Recherches sur l'Epilepsie, l'Hysterie, et l'Idiotie; par Dr. Bourneville (Babé et Cie., Paris, 1891).—Klinische Untersuchungen über die Salzsäureabschiedung des Magens bei Geisteskranken; von Dr. G. Leubuscher und Dr. Th. Ziehen (Gustav Fischer, Jena, 1892).—Magazines for May: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on May 10th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	248*	68	..	13	..	329	442
North-Western Hospital	235	37	..	8	2	282	411
Western ,,	85†	28	..	3	6	122	224
South-Western ,,	208	37	..	9	1	255	350
South-Eastern ,,	280†	10	1	10	5	306	424
Northern ,,	418	34	..	..	..	452	480
Totals	1474	214	1	43	14	1746	2331

* Two infants with mothers. † One infant with mother.

SMALL-POX.—*Atlas* hospital ship, 49.

Medical Diary for the ensuing Week.

Monday, May 16.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. S. Morton: Affections of Eyelids.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Liver and Spleen.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Disposal of (*a*) Household (*b*) Excretal Refuse.

SOCIETY OF ARTS.—8 P.M. Mr. Percy F. Frankland: Recent Bacteriological and Chemical Research in connexion with the Fermentation Industries.

Tuesday, May 17.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: Urticaria and Urticarious Affections.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Insanity of Puberty and Adolescence.

ROYAL INSTITUTION.—3 P.M. Mr. F. E. Ives: Photography in the Colours of Nature.

PATHOLOGICAL SOCIETY OF LONDON.—Annual General Meeting. Mr. C. B. Lockwood: A Tumour of the Breast.—Dr. W. M. Ord: Deposit of Indigo in the Urine, with Experiments.—Dr. F. C. Turner: Lesions of Pyramidal Cells in the Cerebral Cortex in Chorea.—Dr. H. D. Rolleston: A Tubercular Larynx healed.—Mr. J. R. Lunn: Growth from a Girl's Thigh.—Mr. A. Q. Silcock: (1) Malignant Growth affecting the Orbit, Base of Skull, Brain, &c.; (2) Hereditary Sarcoma of the Eyeball in Three Generations.—Dr. W. Hale White: A case of Congenital Heart Disease.—Mr. Stephen Paget: Large Congenital Cyst beneath the Tongue.—Mr. J. Bland Sutton: (1) So-called Plexiform Sarcoma (Billroth); (2) Congenital Absence of Tibia; (3) Case of Duct or Villous Cancer (cards).—Dr. D. Drewitt: Case of Pseudo-hypertrophic Paralysis, with Unusual Enlargement of Muscles.

SOCIETY OF ARTS.—8 P.M. Mr. Wm. Simpson: Mud, a Material for Architecture in Persia and the East.

Wednesday, May 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Kingston Fowler: Demonstration of Cardiac Cases. Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Optic Nerve Atrophy.

ROYAL METEOROLOGICAL SOCIETY (22, Great George-street, Westminster).—7 P.M. Mr. G. M. Whipple: Results of a Comparison of Richard Anémo-Cinémographe with the Standard Beckley Anemograph at the Kew Observatory.—Mr. E. J. Lowe: Rain-drops.—Mr. W. B. Tripp: Levels of the River Vaal at Kimberley, South Africa, with Remarks on the Rainfall of the Watershed.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. Louis C. Parkes: Observations on the Seasonal Prevalence of Enteric Fever in London.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. R. T. Lewis: On the Organs of Oviposition in certain Cattle Ticks.—Mr. E. M. Nelson: (1) The Penetrating Power of the Microscope; (2) The Rings and Brushes of Crystals.

SOCIETY OF ARTS.—8 P.M. Capt. W. De W. Abney: Colour Blindness.

Thursday, May 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of Gases.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Cheadle: Intussusception, its Diagnosis and Treatment.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Buzzard: Cases in the Hospital.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. G. Stoker: Chronic Glandular Diseases of the Nose and Naso-pharynx.

SOCIETY OF ARTS.—8 P.M. Mr. J. A. Baines: The Administration of the Imperial Census of 1891 in India.

HARVEIAN SOCIETY.—8.30 P.M. Cases will be shown by Mr. Edmund Owen, Mr. Walsham, Mr. H. Work Dodd, Mr. Farmer, Dr. Sutherland, and others.

NEUROLOGICAL SOCIETY OF LONDON (20, Hanover-square).—8.30 P.M. Dr. Savill: Sequel to a case of Hysterical Rachialgia and Hypertonicity in a Man aged sixty.—Dr. Wiglesworth: Pachymeningitis Interna Hæmorrhagica.—Dr. Ferrier: (1) Tumour of Frontal Lobe; (2) Spinal Cord in Syringomyelia.—Dr. Taylor: (1) Spinal Cord in Syringomyelia; (2) Tumour of Spinal Cord with Ascending Degeneration.

Friday, May 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Kingston Fowler: Demonstration of Pulmonary Cases.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Anthrax (Gram's Method).—Charing-cross Medical School: 8 P.M., Dr. J. Braxton Hicks: Abdominal Tumours with Ascites.

ROYAL INSTITUTION.—9 P.M. Mr. J. Wilson Swan: Electro-Metallurgy.

Saturday, May 21.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Delusional Insanity.

ROYAL INSTITUTION.—3 P.M. Mr. E. Dannreuther: J. S. Bach's Chamber Music (with many Musical Illustrations).

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

DIRECT REPRESENTATION OF THE PROFESSION.

Dr. Rentoul.—The communication sent us is forcible. But the subject is not likely to be reopened in the Medical Council at present, only six months after the last debate. At some future time we shall be glad to insert such a letter.

Dr. Wm. Hy. Murray.—The solicitor is not responsible if he disclosed his principal.

Dr. Henry H. Rutherfoord.—The communication is receiving attention.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—An M.D., now advanced in years, has been reduced to want, mainly through ill-health. An opportunity offers of his taking up and establishing himself in a practice abroad, but he lacks means to meet the requirements of his outfit and travelling. May I, through your columns, ask the kindly aid of those who are able and willing to help an unfortunate but deserving brother?

I am, Sirs, yours faithfully,

Gloucester-place, W., May 13th, 1892. JOHN LOWE, M.D.

Subscriptions promised:—Dr. and Mrs. Lowe, £3.

"MEDICOS UNDER THE MICROSCOPE."

A RECENT victim of the writer in the *Gentlewoman*—who feels herself constrained by an overwhelming sense of duty to guide her sisters in London in the selection of their medical men, and who has come to regard her descriptions as certificates of merit which eminent practitioners have a right to expect—is Stephen Mackenzie, M.D., F.R.C.P. Dr. Mackenzie has our sympathy. Such notices can perhaps neither much help nor harm the gentlemen who are the subjects of them. But they do infinite harm to the profession by creating an impression that its members are responsible for them, and by teaching the public to look to newspapers for their guidance. It is to be hoped the College of Physicians will express itself in terms of unmistakable disapproval on this new and most undesirable form of journalism.

Dr. A. MacDonald (Cupar Fife).—We think that the assistant is only legally entitled to the remuneration for which he made engagement. Under the circumstances of the case, however, it would be kind and right to make him some adequate recompense for the extra work which he undertook.

Mr. B. M. Bond.—The communication will be dealt with in our next issue.

Hermes should consult his medical attendant.

THE TITLE OF DOCTOR.

To the Editors of THE LANCET.

SIRS,—With respect to the prefix "Dr." I myself always use it for all general practitioners and physicians. I do not consider whether the person is M.D., but simply use it to distinguish him as a member of the medical profession. If a man is M.D. he can put it on his plate, if he likes. Again, a man with an M.B. may not strictly call himself "Dr.," although by courtesy he is frequently so styled. The Scotch, Irish, and English (except London University) M.B.'s have only to wait a certain time after obtaining the M.B., then pay a fee, and send up a thesis. A man with three or four years' practice after leaving hospital ought not to find much difficulty in getting his M.D. in this way, and therefore the title of "Dr.," but a London University M.B. has a stiff examination to gain the title of M.D. and "Dr." When in practice it is more difficult to get any length of time to oneself, and therefore if you have not sufficient money to remain at hospital one or two years after the M.B., you may never get the M.D., and therefore the title "Dr." Is the London University M.B. as difficult (or more so) as the M.D. of any other university? On p. 989 of your issue of April 30th you say—"as matters stand, however, we cannot recommend self-respecting medical practitioners to lay claim to the prefix of 'Doctor' unless it is theirs by right of a university degree as well as 'the common consent of humanity.'" In this week's issue you speak of Dr. Wynn Westcott, Dr. Drew, Dr. Grierson Gledhill (a Bachelor of Medicine &c.). In the issue of April 23rd you speak of Dr. Thorne Thorne, and in that of April 16th of Dr. Meymott Tidy. Under the head of "Birmingham (from our own Correspondent)" this week, I see Dr. W. F. Wade and Dr. T. S. Wilson. The College of Physicians of London sent out cards this year for the lectures on Duodenal Digestion with the name of Dr. W. H. Allchin on them. They also give the title to other Fellows who are only M.B. Again, at the London hospitals (with medical schools attached) the names of physicians are always put up as "Dr.," whether they are M.B. or M.D.

I am, Sirs, yours faithfully,

May 9th, 1892. M.B., London, N.E.

*** Although graduates of a university who hold the M.D. degree are alone strictly entitled to the prefix of "Dr.," it is our custom to extend it as a matter of courtesy to possessors of the M.B. degree of all the universities.—ED. L.

Mr. E. Bowen (Monmouth).—A bond is legal. Whether the terms of a particular document are legal is another matter, on which our correspondent should consult his solicitor.

Dr. Mackay (Cambuslang) should communicate with the Honorary Secretaries of the Medical Defence Union at the Medical Institute, Birmingham.

Dr. Finzi.—The matter is under consideration.

"A MUSEUM OF CURIOSITIES."

To the Editors of THE LANCET.

SIRS,—The following case may prove of interest to some of your readers on account of the rarity of its occurrence.

On the 8th inst. Mrs. —— was delivered of a fully developed child that was found on examination to be a hermaphrodite, having labia in which I believe the testes were lodged, but in the interval between them there was no vaginal opening. The penis was not much larger than a clitoris, and the urethra opened on its under surface. The child had also a cleft soft palate, six fingers on each hand, six toes on the right foot, extreme talipes calcaneo-valgus on each side, and a depressed fissure over the sacral spine. The mother had previously been delivered of two children free from abnormalities.

I am, Sirs, yours faithfully,

Goswell-rd., E.C., May 9th, 1892. EVAN JONES, M.R.C.S., L.R.C.P.

THE ORCHARD ALUM SPRING.

Dr. Thresh of Chelmsford has communicated to us some interesting facts concerning the so-called alum spring near Orchard Farm, Buxton, Derbyshire, the water of which resembles in its nature that of the Flitwick Spring in Bedfordshire. The alum water in a wine-glass usually resembles pale sherry, and in Buxton has often been passed off as such upon the unwary victim of the practical joke. In larger bulk, as in the deep and quiet pools in the little mountain stream, it almost resembles blood. It has an acid taste and reaction, but contains no free acid. When heated to about 150° F. it becomes quite opaque from the separation of a basic ferric sulphate, but if allowed to evaporate on the water bath nearly to dryness the basic salt redissolves, and a yellow vitreous residue ultimately remains. The water after the deposition of the basic salt by heat becomes colourless. The amount of ferric sulphate (174·4 gr. per gallon) corresponds almost exactly with that found in the Flitwick chalybeate spring reported upon from THE LANCET laboratory on Oct. 24th last. The sulphate of alumina in the Buxton water, however, is twice and a half as great—no doubt a serious disadvantage from a therapeutical point of view. From Dr. Thresh's inquiries in and around Buxton it appears that half a century ago the alum water was held in considerable repute, and was fetched from the spring and employed for various purposes, chiefly as a tonic. It soon fell into disrepute, however, mainly on account of the constipation it produced. At the present time its virtues are vaunted amongst the labouring population of this portion of the High Peak as a vermifuge. Occasionally it is given to human beings, but more frequently it is administered to cattle. The animal is kept for some time without food or water, and is then allowed to drink as much of the "alum" water as it will.

Dr. T. Wittenberg (Nagy-Kanizsan, Austro-Hungary).—Our correspondent cannot do better than obtain the Parliamentary Blue-books on the subject, as they contain practically all that pertains to the water-supplies of England. The books may be had, we believe, of Messrs. Eyre and Spottiswoode, at the Sale Office, House of Lords. We are not acquainted with a work dealing comprehensively with all the subjects enumerated by our correspondent.

Dr. Sandell.—The most recent statistics will of course be found in the first and second reports of the Royal Commission on Vaccination. Our correspondent should consult Dr. MacVail's book entitled "Vaccination Vindicated," published by Messrs. Cassell and Co.

Mr. R. Dawson (Reigate) will perceive that we have dealt with the subject of his communication in another column.

THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—Is it legal, and could I be visited by the General Medical Council with any penalty for employing an unqualified assistant to visit and attend midwifery?

I am, Sirs, yours truly,

A MEDICAL OFFICER OF A FRIENDLY ASSOCIATION.

May 7th, 1892.

*** It is difficult to say in any particular case what view the Medical Council would take of the employment of an unqualified assistant. The chief points in the resolutions and announcements of the Council on this subject are that for a practitioner to leave patients in the "sole" charge of an unqualified assistant, or to place such an assistant over a branch practice or in a separate house, or to let him act otherwise than under the direction, supervision, and responsibility of such practitioner, is to incur the risk of censure and punishment by the Council. The following resolution should especially be carefully noted:—"That the Council record on its minutes, for the information of those whom it may concern, that charges of gross misconduct in the employment of unqualified assistants and charges of dishonest collusion with unqualified practitioners in respect of the signing of medical certificates required for the purpose of any law or lawful contract are, if brought before the Council, regarded by the Council as charges of infamous conduct under the Medical Act."—ED. L.

Alpha.—A professional witness is entitled to second class railway fare and reasonable hotel expenses. The fee per diem varies from one to three guineas according to the discretion of the taxing master. The taxed costs are not open to inspection.

Mr. F. Guthrie Melville (Edinburgh).—Our correspondent is thanked for his information, of which, as he will perceive, we have availed ourselves in the present number.

A Country Surgeon.—We do not recollect the reference which our correspondent alludes to; but he might consult our advertising columns with advantage.

Mr. J. Carter should apply for information to the Agent-General, Colonial Office, Victoria-street, S.W.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 12th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May 6	30·12	N.E.	45	40	102	53	36	—	Cloudy
,, 7	30·22	S.W.	45	40	103	65	35	—	Hazy
,, 8	30·19	S.W.	53	48	101	68	43	..	Bright
,, 9	30·21	S.E.	54	49	101	70	46	..	Cloudy
,, 10	30·19	S.E.	54	48	108	68	45	..	Bright
,, 11	30·24	N.E.	56	50	118	72	45	..	Bright
,, 12	30·37	N.E.	55	50	115	70	45	..	Bright

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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NEWSPAPERS.—*Hertfordshire Mercury, Reading Mercury, Windsor and Eton Express, Weekly Free Press and Aberdeen Herald, Windsor and Eton Gazette, Mining Journal, West Middlesex Standard, City Press, Leeds Mercury, Local Government Chronicle, Surrey Advertiser, Liverpool Daily Post, Bristol Mercury, Scottish Leader, Architect, Yorkshire Post, West Middlesex Advertiser, Margate and Ramsgate Gazette, Law Journal, Pioneer Mail, Insurance Record, Glasgow Herald, Saint John Globe (New Brunswick), Eastern Daily Press, Times of India, Local Government Journal, Liverpool Courier, Rangoon Gazette, Scotsman, Sussex Daily News, Le Temps (Paris), Dundee Advertiser, Brighton Gazette, Citizen, East Anglian Daily Times, Adelaide Observer, Derby Reporter, Hastings News, Thames Times, Oxford Journal, Western Morning News, Hobart Mercury, Bell's Weekly Messenger, Builder, Birmingham Daily Post, Pall Mall Gazette, Sunday Times, Newcastle Daily Chronicle, Manchester Guardian, &c.*, have been received.

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